

8-1512

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: ELLI PESELE Examiner #: 62213 Date: 3/31/06
Art Unit: 1623 Phone Number: 2-0659 Serial Number: 10/806,065
Location (Bldg/Room#): REM 5C18 (Mailbox #): _____ Results Format Preferred (circle): PAPER DISK

345

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: _____

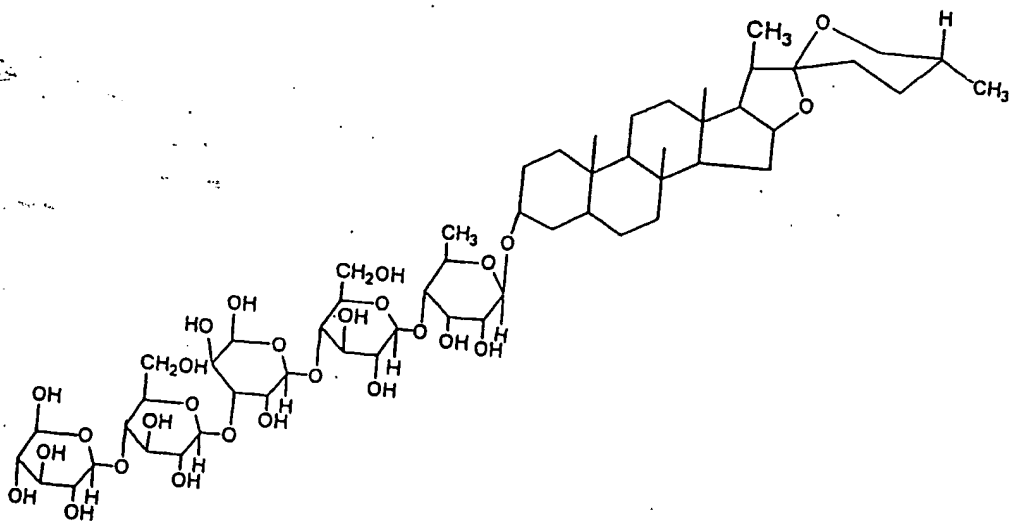
Inventors (please provide full names): _____

Earliest Priority Date: _____

Search Topic:
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number. *please do structure search*

1. (Currently Amended) Tigogenin pentaglycoside of formula I isolated from aerial parts of *Chlorophytum nimonii*



SERIAL NUMBER 10/806,065	FILING OR 371(c) DATE 03/22/2004 RULE	CLASS 514	GROUP ART UNIT 1623	ATTORNEY DOCKET NO. U 015093-6
APPLICANTS Lakshmi Vijay, Lucknow, INDIA;				

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:22:33 ON 07 SEP 2006

=> d his

FILE 'HCAPLUS' ENTERED AT 10:30:50 ON 07 SEP 2006

L1 1 S US20050209168/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 10:31:05 ON 07 SEP 2006

L2 4 S E1-E4
L3 1 S 864969-11-9/RN

FILE 'HCAPLUS' ENTERED AT 10:31:52 ON 07 SEP 2006

L4 1 S L3

FILE 'REGISTRY' ENTERED AT 10:32:20 ON 07 SEP 2006

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L6 2 S L5
L7 STR L5
L8 STR L7
L9 0 S L8
L10 3492 S 9991.6.1/RID
L11 589626 S 46.157.1/RID
L12 1357 S L10 AND L11
L13 9039 S 5/RID.CNT (T) 46.157.1/RID
L14 134 S L10 AND L13
L15 1 S L14 AND L2

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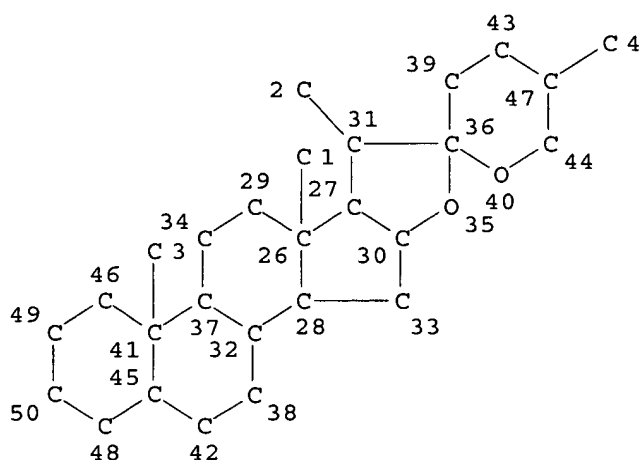
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L19 STR L5
L20 7 S L19
L21 146 S L19 FUL
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L24 1 S L21 AND L2

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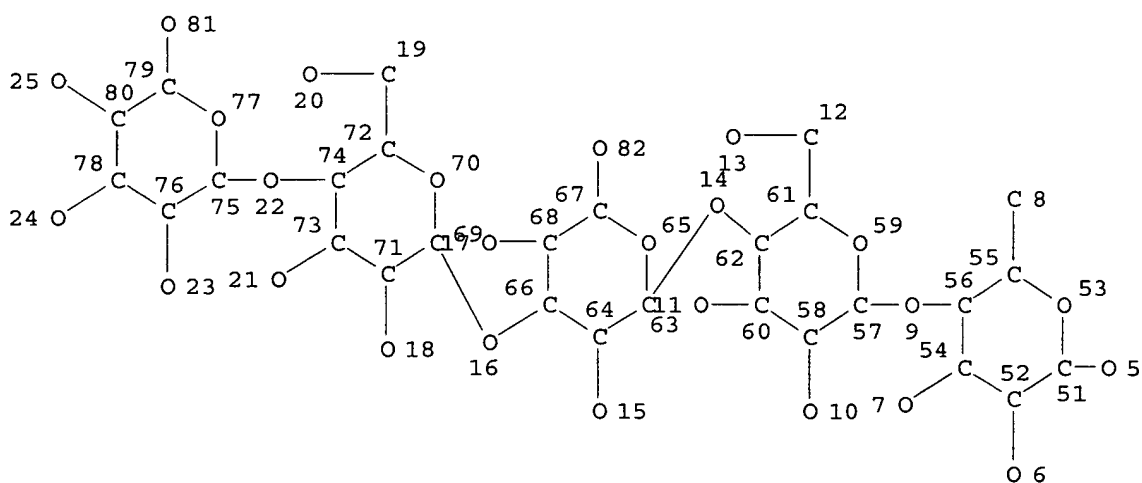
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L27 46 S L26(L) THU/RL
L28 46 S L25 OR L27

=> d que 123

L8 STR



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DEFAULT ECLEVEL IS LIMITED

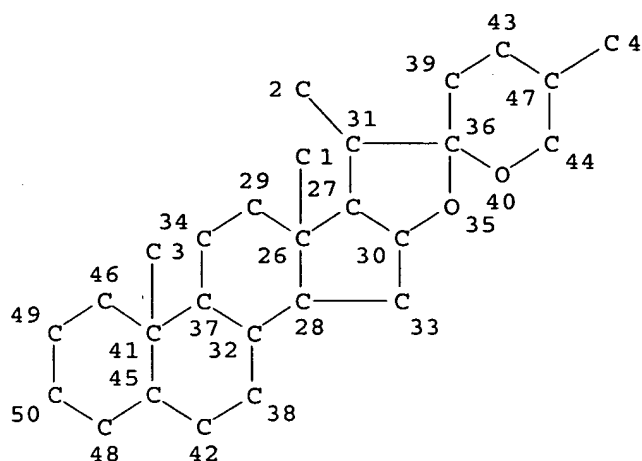
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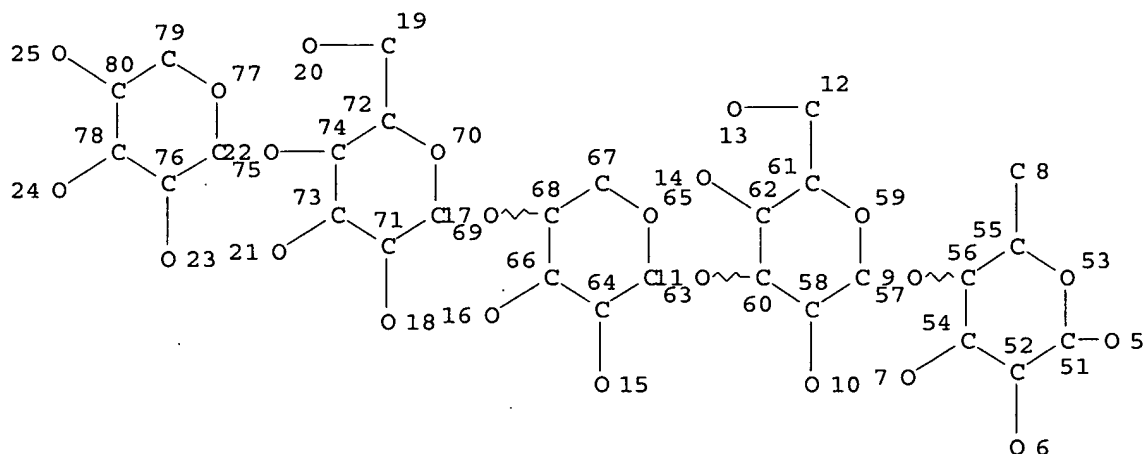
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STEREO ATTRIBUTES: NONE

L19 STR



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Page 2-A

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Page 2-B

NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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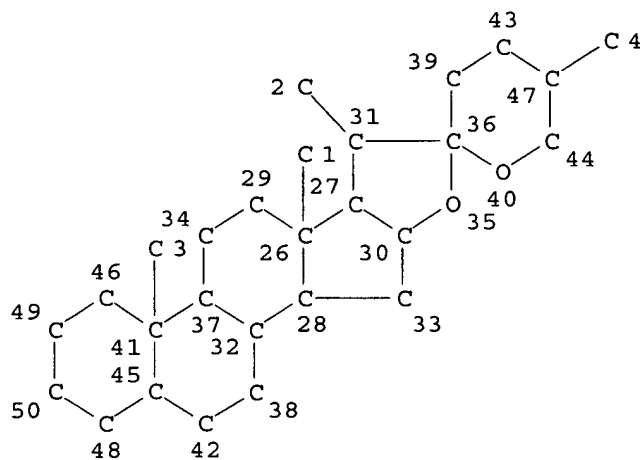
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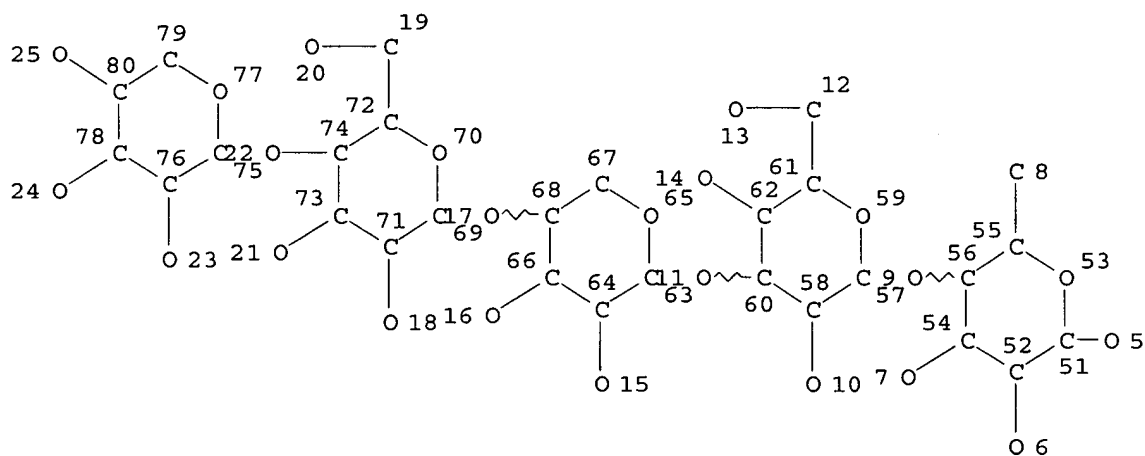
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L19

71-36-3/BI OR 864969-11-9/BI)
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Page 2-A

5

Page 2-B

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 5

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 80

STEREO ATTRIBUTES: NONE

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L25 1 SEA FILE=HCAPLUS ABB=ON L24

L26 1445 SEA FILE=HCAPLUS ABB=ON L21

L27 46 SEA FILE=HCAPLUS ABB=ON L26 (L) THU/RL

L28 46 SEA FILE=HCAPLUS ABB=ON L25 OR L27

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FILE 'HCAPLUS' ENTERED AT 13:22:42 ON 07 SEP 2006

=> d 128 1-46 ibib abs hitstr hitind

L28 ANSWER 1 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:795811 HCAPLUS

TITLE: Method and device for ophthalmic
administration of active pharmaceutical
ingredients

INVENTOR(S): Gross, Yossi; Herzog, Rafi; Koevary, Steven B.

PATENT ASSIGNEE(S): Pharmalight Inc., USA

SOURCE: PCT Int. Appl., 127pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006082588	A2	20060810	WO 2006-IL145	

2006
0206

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CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ,
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL,
SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-650144P P

2005
0207

US 2005-742870P P

2005
1207

AB Disclosed is the use of a mist of a pharmaceutical composition for ophthalmic delivery of a protein or peptide active pharmaceutical ingredient, a related method of treatment and a device useful in implementing the use and method. Disclosed is also the use of a mist for ophthalmic delivery of a pharmaceutical composition including a highly irritating penetration enhancer and a carrier, a related method of treatment and a device useful in implementing the use and method. Disclosed is also a device for ophthalmic administration configured to direct a mist of a pharmaceutical composition to the eye only when the eye is open. Disclosed is also a self-sterilizing device for ophthalmic administration. Disclosed is also a device and a method for increasing the bioavailability

of an ophthalmically administered drug in a pharmaceutical composition

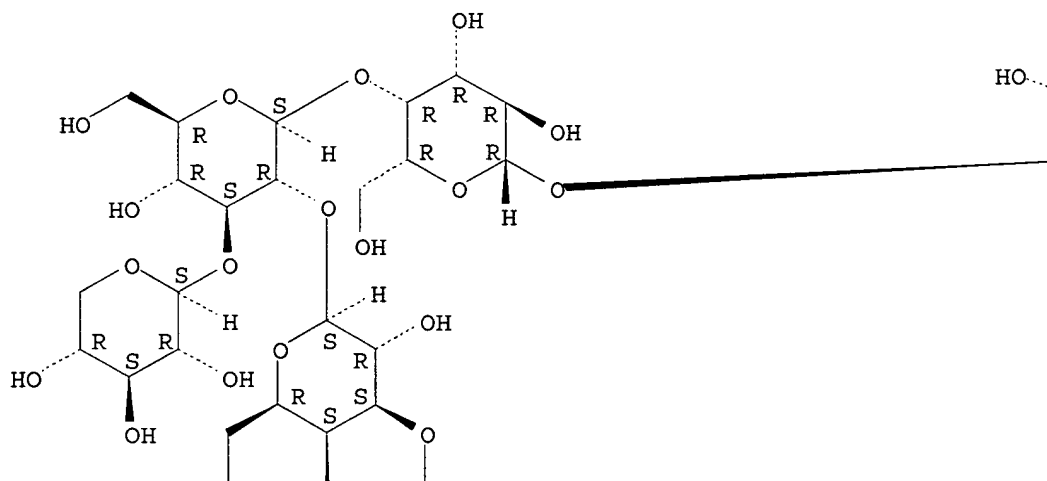
IT 11024-24-1, Digitonin
(method and device for ophthalmic administration of
pharmaceutical ingredients)

RN 11024-24-1 HCAPLUS

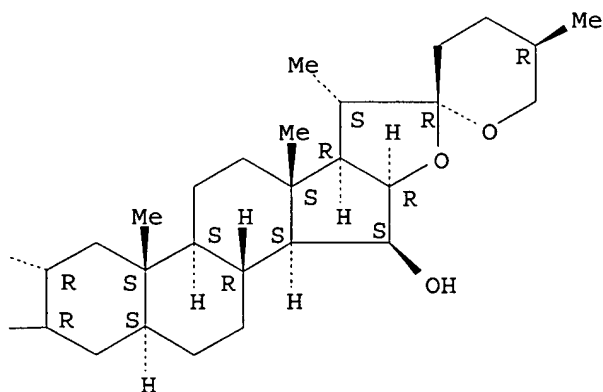
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(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
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(9CI) (CA INDEX NAME)

Absolute stereochemistry.

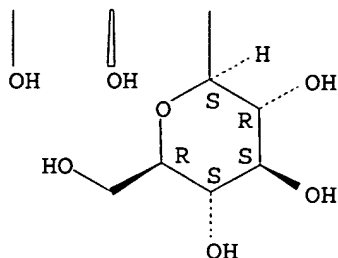
PAGE 1-A



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PAGE 2-A



CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1

IT 434-22-0, 19-Nortestosterone 438-60-8, Protriptyline 443-48-1,
 Metronidazole 474-25-9, Chenodeoxycholic acid 475-31-0,
 Glycocholic acid 475-31-0D, Glycocholic acid, derivs.
 493-92-5, Prolintane 508-99-6, Hydrocortisone
 cyclopentylpropionate 513-10-0, Echothiopate iodide 514-61-4,
 17 α -Methyl-19-nortestosterone 515-98-0 516-50-7,
 Taurodeoxycholic acid 516-55-2, 5 α -Pregnan-3 β -ol-20-
 one 520-26-3, Hesperidin 520-85-4, Medroxyprogesterone
 521-12-0, Dromostanolone propionate 521-17-5, Androstenediol
 521-18-6, 4-Dihydrotestosterone 530-78-9, Flufenamic acid
 532-32-1, Sodium benzoate 532-77-4, Hexylcaine 541-22-0,
 Decamethonium bromide 552-94-3, Disalcid 554-57-4,
 Methazolamide 564-25-0, Doxycycline 571-20-0 577-11-7,
 Sodium dioctylsulfosuccinate 577-48-0, Butamben picrate
 586-60-7, Dyclonine 587-23-5, Methenamine mandelate 595-33-5,
 Megestrol acetate 595-52-8, Descinolone 616-45-5,
 2-Pyrrolidone 617-73-2, 2-Hydroxyoctanoic acid 625-69-4,
 2,4-Pentanediol 629-25-4, Sodium laurate 630-56-8,
 Hydroxyprogesterone caproate 638-94-8, Desonide 643-22-1,
 Erythromycin stearate 644-62-2, Meclofenamic acid 665-66-7,
 Amantadine hydrochloride 739-71-9, Trimipramine 751-97-3,
 Rolitetracycline 773-76-2, Chloroxine 777-11-7, Haloprogin
 797-63-7, Levonorgestrel 807-38-5, Fluocinolone 835-31-4,
 Naphazoline 848-21-5, Norgestrienone 859-18-7, Lincomycin
 hydrochloride 863-57-0, Sodium glycocholate 872-50-4,
 1-Methyl-2-pyrrolidone 912-57-2, Nandrolone cyclohexane-
 propionate 914-00-1, Methacycline 965-90-2, Ethylestrenol
 968-93-4, Testolactone 977-79-7, Medrogestone 1003-07-2,
 Isothiazolinone 1070-11-7, Ethambutol hydrochloride 1099-87-2,
 Sodium dehydroepiandrosterone sulfate 1164-95-0, Androsterone
 acetate 1180-95-6, Sodium taurodeoxycholate 1247-42-3,
 Meprednisone 1255-35-2, Fluprednidene acetate 1263-89-4,
 Paromomycin sulfate 1305-62-0, Calcium hydroxide 1310-73-2,
 Sodium hydroxide 1323-54-2, Acetoxypregnenolone 1338-39-2,
 Sorbitan monolaurate 1338-43-8, Sorbitan monooleate 1393-25-5,
 Secretin 1400-61-9, Nystatin 1401-69-0, Tylosin 1403-17-4,
 Candicidin 1403-66-3, Gentamicin 1404-04-2, Neomycin
 1404-88-2, Tyrothricin 1404-90-6, Vancomycin 1405-10-3,
 Neomycin sulfate 1405-41-0, Gentamicin sulfate 1405-86-3,
 Glycyrrhizic acid 1405-87-4, Bacitracin 1405-97-6, Gramicidin
 1406-05-9, Penicillin 1406-11-7, Polymyxin 1406-18-4, Vitamin
 E 1474-55-1, Nandrolone benzoate 1524-88-5, Flurandrenolone
 acetone 1643-20-5 1668-19-5, Doxepin 1695-77-8,
 Spectinomycin 1732-10-1, Dimethyl azelate 1880-52-0
 1977-11-3, Perlapine 2002-29-1, Flumethasone pivalate

2013-58-3, Meclocycline 2058-46-0, Oxytetracycline hydrochloride
 2098-66-0, Cyproterone 2135-17-3, Flumethasone 2152-44-5,
 Betamethasone valerate 2398-96-1, Tolnaftate 2529-45-5,
 Flurogestone acetate 2668-66-8, Medrysone 2687-91-4,
 1-Ethyl-2-pyrrolidone 2717-15-9, Triethanolamine oleate
 2917-73-9, Dibutyl azelate 2919-66-6, Melengestrol acetate
 2935-44-6, 2,5-Hexanediol 3000-39-3, Quingestanol acetate
 3079-28-5, Decyl methyl sulfoxide 3090-70-8 3093-35-4,
 Halcinonide 3116-76-5, Dicloxacillin 3137-73-3, Anagestone
 acetate 3232-84-6, Urazole 3362-45-6, Noxiptilin 3380-34-5,
 Triclosan 3385-03-3, Flunisolide 3521-62-8, Erythromycin
 estolate 3562-63-8, Megestrol 3577-01-3, Cephaloglycin
 3687-46-5, Decyl oleate 3693-39-8, Fluccloronide 3697-42-5,
 Chlorhexidine hydrochloride 3810-74-0, Streptomycin sulfate
 3841-11-0, Fluperolone 3922-90-5, Oleandomycin 3924-70-7,
 Amcinafal 3963-95-9, Methacycline hydrochloride 4317-14-0
 4394-00-7, Niflumic acid 4419-39-0, Beclomethasone 4498-32-2,
 Dibenzeprin 4602-84-0, Farnesol 4697-36-3, Carbenicillin
 4757-55-5, Dimetacrine 4828-27-7, Clocortolone 5003-48-5,
 Benorylate 5075-92-3, 1,5-Dimethyl-2-pyrrolidone 5104-49-4,
 Flurbiprofen 5118-29-6, Melitracen 5138-18-1D, Sulfosuccinic
 acid, salts 5250-39-5, Floxacillin 5422-34-4, Lactamide MEA
 5424-40-8 5534-09-8, Beclomethasone dipropionate 5560-72-5,
 Iprindole 5593-20-4, Betamethasone dipropionate 5663-98-9
 5714-73-8, Methenamine hippurate 5721-91-5, Testosterone
 decanoate 5728-52-9, Felbinac 5786-21-0, Clozapine
 5953-68-4, Androsterone propionate 5953-69-5, Androsterone
 benzoate 6242-26-8 6440-58-0, DMDM hydantoin 6533-00-2,
 Norgestrel 6640-24-0 6740-88-1, Ketamine 6829-98-7,
 Imipramine N-oxide 6915-15-7, Malic acid 6938-94-9,
 Diisopropyl adipate 6990-06-3, Fusidic acid 6990-06-3D,
 Fusidic acid, derivs. 6998-60-3, Rifamycin 7008-26-6,
 Dichlorisone 7332-27-6, Amcinafide 7416-34-4, Molindone
 7491-02-3, Diisopropyl sebacate 7542-37-2, Paromomycin
 7631-90-5, Sodium bisulfite 7642-64-0, Nandrolone
 furylpropionate 7647-01-0, Hydrochloric acid 7664-38-2,
 Phosphoric acid 7664-93-9, Sulfuric acid 7664-93-9D, Sulfuric
 acid, alkyl esters 7753-60-8, Anecortave acetate 8025-81-8,
 Spiramycin 8064-90-2 8067-69-4, Halquinols 9001-54-1,
 Hyaluronidase 9001-63-2, Lysozyme 9001-99-4, Ribonuclease
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 9002-92-0, Brij 35 9003-01-4D, Polyacrylic acid, thiolated
 9003-13-8, Polypropylene glycol butyl ether 9003-39-8,
 Polyvinylpyrrolidone 9004-10-8, Insulin 9004-61-9, Hyaluronic
 acid 9004-81-3, Polyethylene glycol monolaurate 9004-82-4,
 Sodium lauryl ether sulfate 9004-95-9, Polyoxyethylene cetyl
 ether 9004-98-2, Brij-98 9004-99-3, Polyoxyethylene stearate
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 derivs. 9005-63-4, Polyoxyethylene sorbitan 9005-64-5,
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 9007-92-5, Glucagon 9008-54-2, Circulin 9015-82-1, Angiotensin
 converting enzyme 9016-00-6, Polydimethyl siloxane 9034-39-3,
 Growth hormone releasing hormone 9034-40-6, Gonadotropin
 releasing hormone 9035-85-2, Polyoxypropylene cetyl ether
 9036-19-5, Octylphenoxy polyethoxyethanol 10118-90-8,
 Minocycline 10262-69-8, Maprotiline 10321-12-7, Propizepine
 10418-03-8, Stanazolol 10437-36-2 11000-17-2, Vasopressin
 11003-38-6, Capreomycin 11024-24-1, Digitonin
 11103-57-4, Vitamin A 11111-12-9D, Cephalosporins, derivs.

12026-18-5, Aluminum magnesium oxide silicate (Al₄Mg₂O₃(SiO₃)₅)
 12619-70-4, Cyclodextrin 12650-69-0, Mupirocin 13009-99-9,
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 13539-59-8, Azapropazone 13609-67-1, Hydrocortisone butyrate
 13614-98-7, Minocycline hydrochloride 13710-19-5, Tolfenamic
 acid 13840-40-9, Phosphine oxide 14028-44-5 14066-79-6,
 Chlorprednisone acetate 14291-86-2 14340-01-3, Gestadene
 15307-86-5, Diclofenac 15574-96-6, Pizotyline
 (method and device for ophthalmic administration of
 pharmaceutical ingredients)

L28 ANSWER 2 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:646852 HCAPLUS

DOCUMENT NUMBER: 145:137795

TITLE: Method for screening action target of cardiac
glycoside drug using proteomics technology

INVENTOR(S): Gao, Haiqing; Qiu, Jie; Jia, Jijun; Chen,
Chunyan; Ma, Yabing

PATENT ASSIGNEE(S): Shandong Univ., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
14 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1793933	A	20060628	CN 2005-10129839	2005 1205
PRIORITY APPLN. INFO.:			CN 2004-10075826	A 2004 1227

AB The title method comprises: (1) culturing cardiac muscle cell and establishing action model of cardiac glycoside drug on cardiac muscle cell, (2) preparing cardiac muscle two-dimensional electrophoresis protein samples, carrying out two-dimensional gel electrophoresis, and analyzing image to obtain differential expression protein, (3) gel-digesting differential protein, determining differential protein peptide mass fingerprinting by mass spectrometry (MS), and identifying and analyzing the differential protein by using sequence database, and (4) deriving DNA sequence. This method can be directly used in guiding research for developing new anti-heart failure drugs with highly effectiveness and low toxicity.

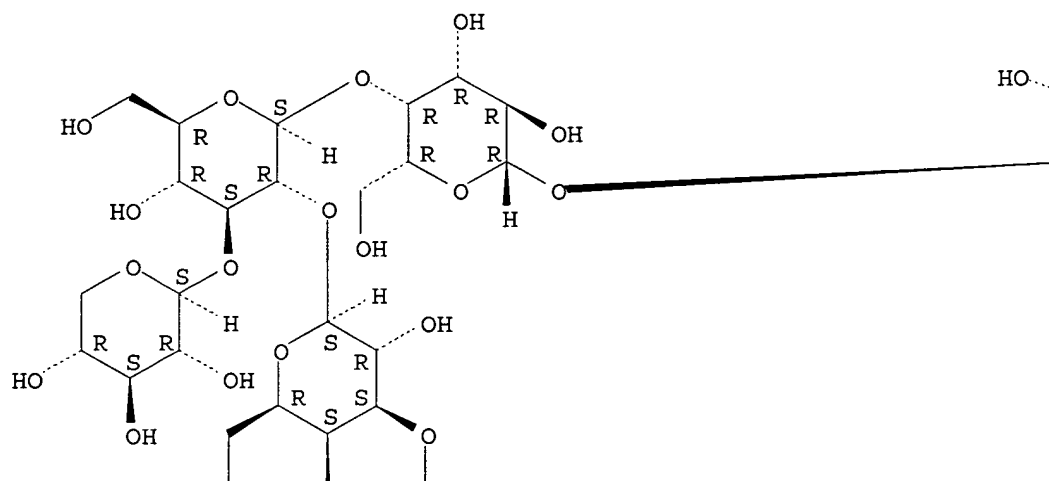
IT 11024-24-1, Digitonin
(method for screening action target of cardiac glycoside drug using proteomics technol.)

RN 11024-24-1 HCAPLUS

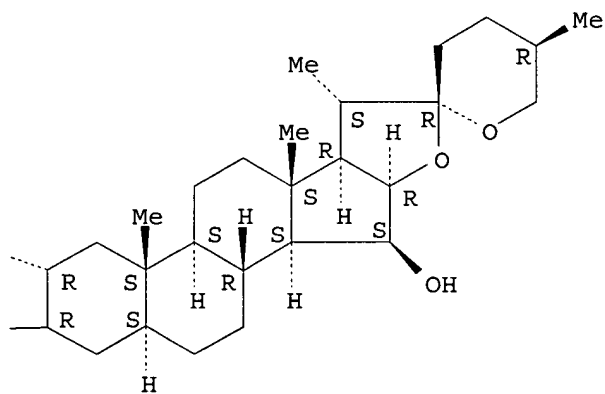
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

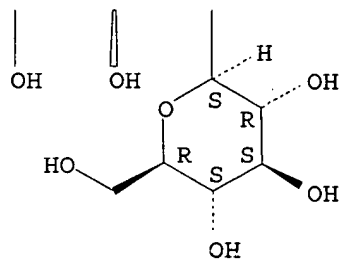
PAGE 1-A



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PAGE 2-A



CC 1-1 (Pharmacology)
 IT 11005-63-3, Strophanthin 11024-24-1, Digitonin
 (method for screening action target of cardiac glycoside drug
 using proteomics technol.)

L28 ANSWER 3 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:518006 HCAPLUS
 DOCUMENT NUMBER: 145:180287
 TITLE: Inhibition of Candida rugosa lipase by
 saponins, flavonoids and alkaloids
 AUTHOR(S): Ruiz, Cristian; Falcocchio, Serena; Xoxi,
 Entela; Villo, Ly; Nicolosi, Giovanni; Pastor,
 F. I. Javier; Diaz, Pilar; Saso, Luciano
 CORPORATE SOURCE: Department of Human Physiology and
 Pharmacology Vittorio Erspamer, University of
 Rome La Sapienza, Rome, 00185, Italy
 SOURCE: Journal of Molecular Catalysis B: Enzymatic
 (2006), 40(3-4), 138-143
 CODEN: JMCEF8; ISSN: 1381-1177
 PUBLISHER: Elsevier B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Lipase inhibitors have generated a great interest because they
 could help in the prevention or the therapy of lipase-related
 diseases. Therefore, the aim of the work was to evaluate by HPLC,
 and using Candida rugosa lipase as model, the inhibitory effect of
 several saponins: β -aescin, digitonin, glycyrrhizic acid (GA)
 and Quillaja saponin (QS); flavonoids: 3-hydroxyflavone,
 5-hydroxyflavone, (+)-catechin and kaempferol; and alkaloids:
 aspidospermine, papaverine, physostigmine, pilocarpine, raubasine,
 rescinnamine, reserpine and trigonelline. The inhibition produced
 by most of these compds. is described here for the first time.
 Saponins appeared very active, being β -aescin and digitonin
 the most active compds. ($IC_{50} = 0.8-2.4 \times 10^{-5}$ M). The
 inhibitory activity of flavonoids was lower than that of saponins
 (except GA), and (+)-catechin and kaempferol were the most
 active. Alkaloids was the most heterogeneous group assayed,
 varying from rescinnamine, with an IC_{16} similar to that of
 digitonin, to papaverine and others which showed almost no
 inhibition. In conclusion, β -aescin, digitonin, kaempferol
 or (+)-catechin, strong lipase inhibitors with a low toxicity
 and present herbal drugs used for lipase-related diseases such as
 acne or ulcer, are promising candidates for the prevention or the
 treatment of these diseases.

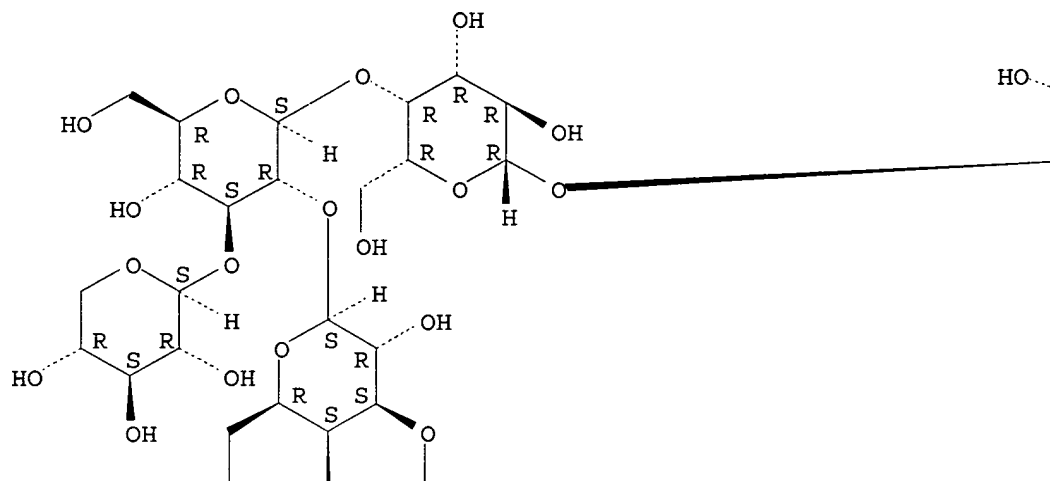
IT 11024-24-1, Digitonin
 (inhibition of Candida rugosa lipase by saponins, flavonoids
 and alkaloids)

RN 11024-24-1 HCAPLUS

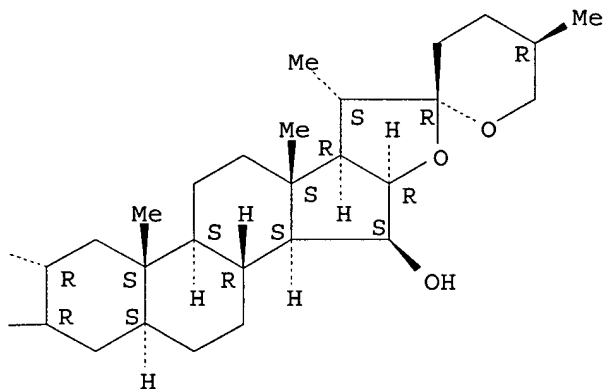
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

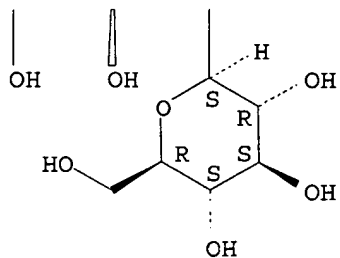
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 1-5 (Pharmacology)

Section cross-reference(s): 10

IT 50-55-5, Reserpine 57-47-6, Physostigmine 58-74-2, Papaverine
92-13-7, Pilocarpine 466-49-9, Aspidospermine 483-04-5,
Raubasine 491-78-1, 5-Hydroxyflavone 520-18-3, Kaempferol
535-83-1, Trigonelline 577-85-5, 3-Hydroxyflavone 1405-86-3,
Glycyrrhizic acid 7295-85-4, (+)-Catechin 11024-24-1
, Digitonin 11072-93-8, β -Aescin 24815-24-5, Rescinnamine
(inhibition of *Candida rugosa* lipase by saponins, flavonoids
and alkaloids)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 4 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:518005 HCAPLUS

DOCUMENT NUMBER: 145:180654

TITLE: *Propionibacterium acnes* GehA lipase, an enzyme
involved in acne development, can be
successfully inhibited by defined natural
substances

AUTHOR(S): Falcocchio, Serena; Ruiz, Cristian; Pastor, F.
I. Javier; Saso, Luciano; Diaz, Pilar

CORPORATE SOURCE: Department of Microbiology, Faculty of
Biology, University of Barcelona, Barcelona,
08028, Spain

SOURCE: Journal of Molecular Catalysis B: Enzymatic
(2006), 40(3-4), 132-137

CODEN: JMCEF8; ISSN: 1381-1177

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB *Propionibacterium acnes*, a usual inhabitant of human skin, plays
an important role in acne development, related to the production of
numerous enzymic activities involved in the degradation of host mols.
Among these enzymes, *P. acnes* lipase (GehA, glycerol-ester
hydrolase A) was recognized as one of the major factors in the
pathogenesis of acne, being responsible for the hydrolysis of
sebum and the release of inflammatory compds. Anti-acne
treatments are based on the use of retinoids or benzoyl peroxide,
frequently in combination with antibiotics. However, the low
effectiveness of such treatments and the increasing antibiotic
resistance has led to the development of alternative therapies
such as Kampo formulations, containing traditional herbal drugs.
Search for new anti-acne treatments led us to perform the cloning,
characterization, and inhibition of *P. acnes* GehA, considered an
interesting pharmaceutical target for anti-acne therapies. The
genetic, mol., and biochem. properties of the cloned lipase were
analyzed, and several inhibitor agents were tested, including
natural substances like saponins, alkaloids, or flavonoids. Among
these, the flavonoids (+)-catechin and kaempferol were the most
promising candidates for acne treatment, whereas saponins like
glycyrrhizic acid and digitonin produced a lower inhibition of the
enzyme. No inhibition by alkaloids was found. Therefore, the
inhibition caused by (+)-catechin and kaempferol on GehA,
together with their wide anti-acne properties and low toxicity,
make them very suitable candidates for the treatment of acne and
other *P. acnes*-related diseases.

IT 11024-24-1, Digitonin

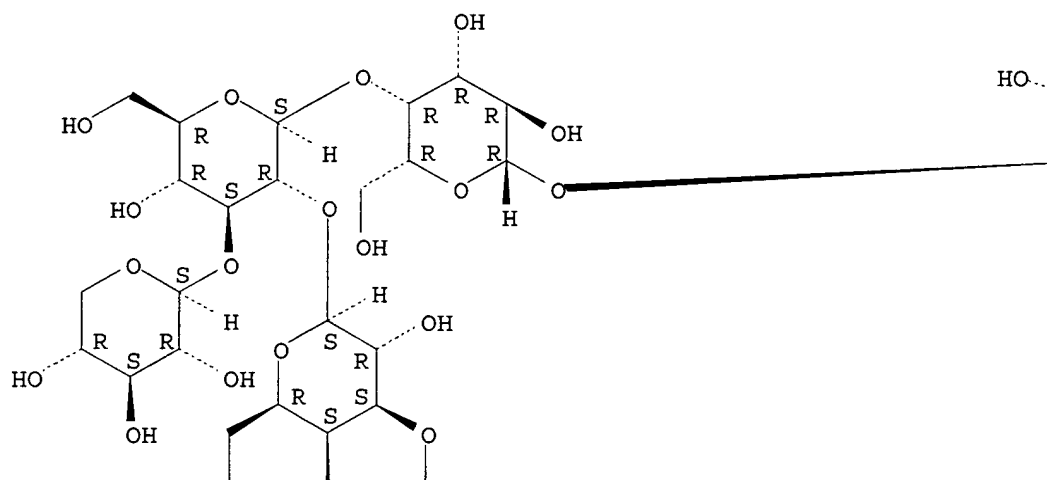
(inhibition of *Propionibacterium acnes* lipase by natural substances)

RN 11024-24-1 HCAPLUS

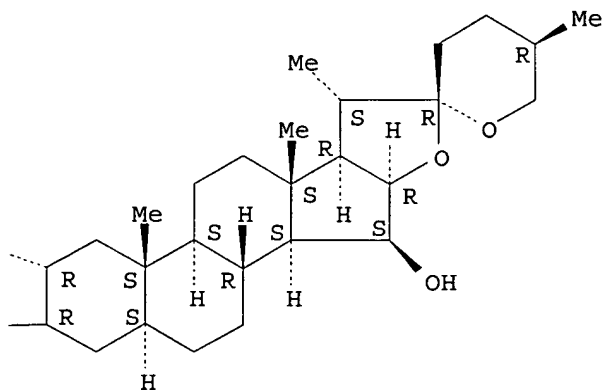
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

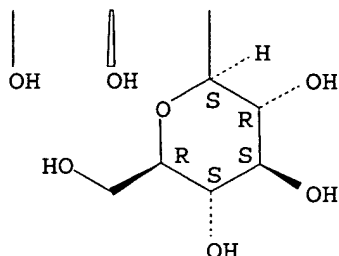
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 1-10 (Pharmacology)
 IT 50-55-5, Reserpine 520-18-3, Kaempferol 1126-48-3,
 p-Hydroxymercuribenzoic acid 1405-86-3, Glycyrrhizic acid
 2466-76-4, N-Acetylimidazole 7295-85-4, (+)-Catechin
 7440-39-3, Barium, biological studies 7440-48-4, Cobalt,
 biological studies 11024-24-1, Digitonin 11072-93-8,
 β-Aescin 24815-24-5, Rescinnamine
 (inhibition of Propionibacterium acnes lipase by natural
 substances)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L28 ANSWER 5 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1300008 HCAPLUS

DOCUMENT NUMBER: 144:142679

TITLE: Effects of digitonin on hyperglycaemia and
 dyslipidemia induced by high-sucrose intake

AUTHOR(S): Ebaid, Geovana M. X.; Faine, Luciane A.;
 Diniz, Yeda S.; Rodrigues, Hosana G.;
 Galhardi, Cristiano M.; Ribas, Bartolome O.;
 Fernandes, Ana Angelica H.; Novelli, Ethel L.
 B.

CORPORATE SOURCE: Post Graduation Course Department of Clinical
 and Cardiology, Faculty of Medicine, UNESP,
 Sao Paulo, CEP 18618-000, Brazil

SOURCE: Food and Chemical Toxicology (2006), 44(2),
 293-299

CODEN: FCTOD7; ISSN: 0278-6915

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study examined whether high-sucrose intake effects on lipid
 profile and oral glucose tolerance may be inhibited by a single
 administration of digitonin, a saponin from the seeds of Digitalis
 purpurea Male Wistar 24 rats were initially divided into two
 groups : (C) was given standard chow and water; (S) received standard chow
 and 30% sucrose in its drinking water. After 30 days of
 treatments, C rats were divided into two groups : (CC) given an
 intra-gastric dose 0.5 mL saline; (CD) given a single
 intra-gastric dose of 15 mg/kg digitonin. S rats were also
 divided into two groups : (SC) given intra-gastric saline and (SD)
 given digitonin. Rats were sacrificed after the oral glucose
 tolerance test (OGTT) at 2 h after the digitonin administration.
 S rats had higher total energy intake and final body weight than C.
 SC rats had fasting hyperglycemia and impaired OGTT. Digitonin in
 SD group improved the glucose tolerance. Triacylglycerol (TG),

very-low-d. lipoprotein (VLDL-C) and free fatty acid (FFA) serum concns. were increased in SD rats from CC. Digitonin in SD rats decreased FFA and led TG and VLDL-C concns. at the levels observed in the CC group. Despite the enhanced cholesterol in CD group from CC, the high-d. lipoprotein (HDL-C) was increased in these animals. HDL-C/TG ratio was higher in CD and SD than in CC and SC, resp. No significant differences were observed in lipid hydroperoxide (LH) between the groups. VLDL-C/LH ratio and gamma-glutamyl transferase (GGT) activity were increased in SC group and were decreased in SD rats from the SC. In conclusion digitonin enhanced glucose tolerance and had beneficial effects on serum lipids by improved antioxidant activity.

IT 11024-24-1, Digitonin

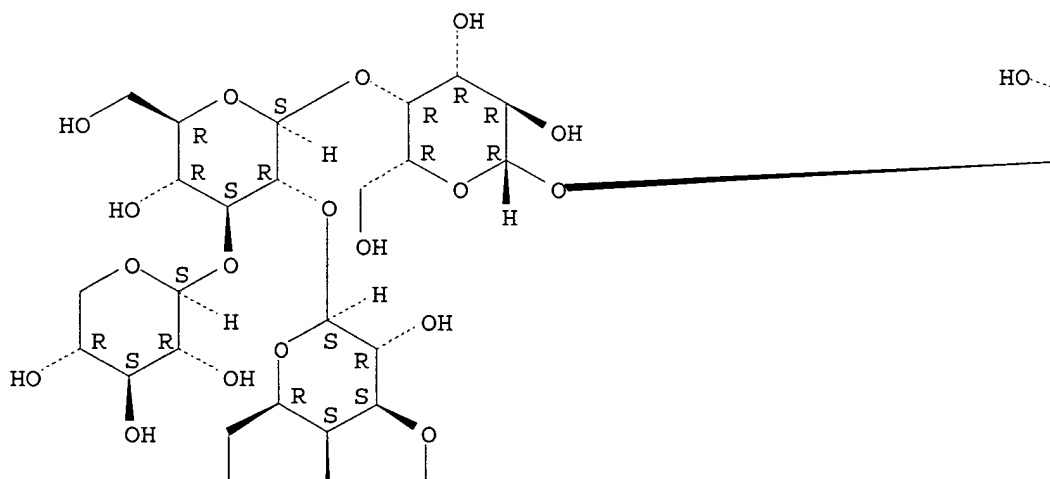
(effects of digitonin on glucose tolerance and dyslipidemia after high-sucrose intake in relation to antioxidant activity)

RN 11024-24-1 HCAPLUS

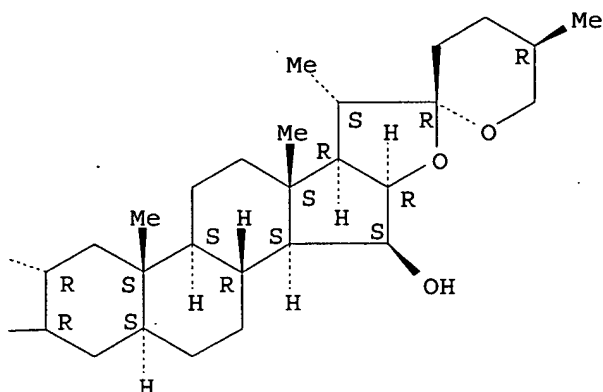
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

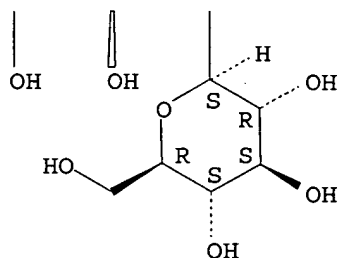
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 1-10 (Pharmacology)

IT 11024-24-1, Digitonin

(effects of digitonin on glucose tolerance and dyslipidemia
after high-sucrose intake in relation to antioxidant activity)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 6 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1089573 HCAPLUS

DOCUMENT NUMBER: 143:343180

TITLE: Method for preparation of steroidal saponins
and pharmaceutical composition for treating
superficial and deep fungous infection

INVENTOR(S): Zhang, Yi; Du, Guanhua; Jiang, Xiaoyan; Ding,
Yi

PATENT ASSIGNEE(S): Wuhan University, Peop. Rep. China; Institute
of Materia Medica, Chinese Academy of Medical
Sciences

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
16 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

USHA SHRESTHA EIC 1600 REM 1A64

CN 1563074

A

20050112

CN 2004-10013058

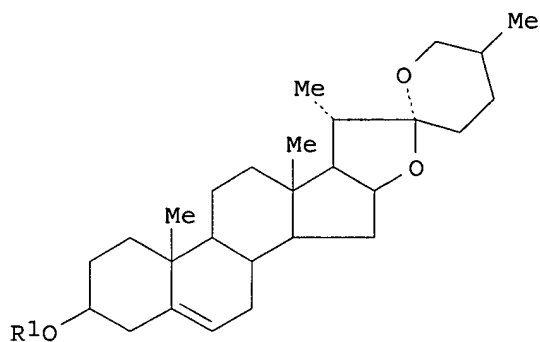
2004
0420

PRIORITY APPLN. INFO.:

CN 2004-10013058

2004
0420

GI



I

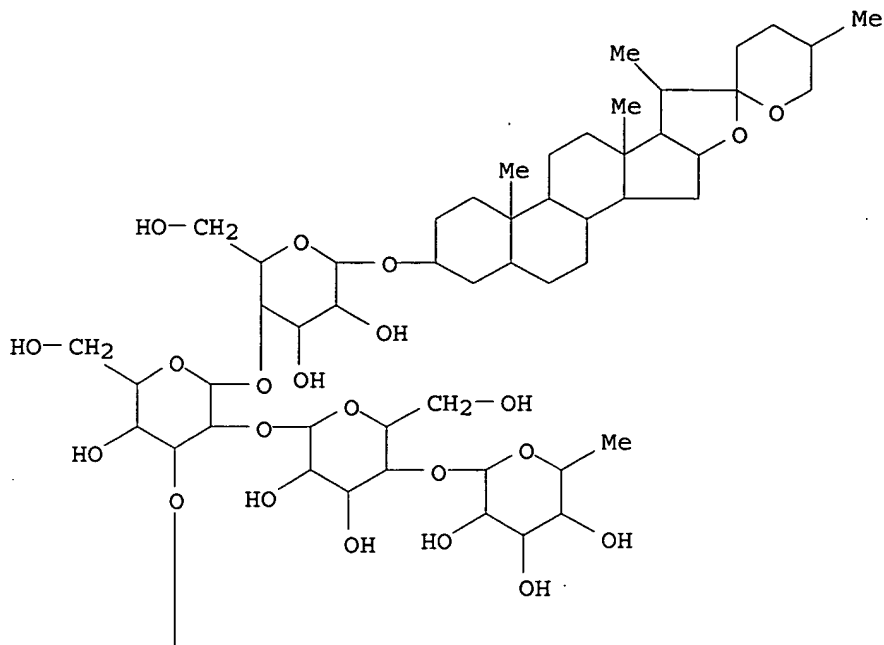
AB Steroidal saponins I ($R_1 = [(1 \rightarrow 3)\text{-}\beta\text{-D-glucopyranosyl}]\text{-}[(1 \rightarrow 2)\text{-}6\text{-deoxy-}\alpha\text{-L-mannopyranosyl}]\text{-}\beta\text{-D-glucopyranosyl}$, $[6\text{-deoxy-}(1 \rightarrow 4)\text{-}\alpha\text{-L-mannopyranosyl}]\text{-}[6\text{-deoxy-}(1 \rightarrow 2)\text{-}\alpha\text{-L-mannopyranosyl}]\text{-}\beta\text{-D-glucopyranosyl}$) were prepared from *Dioscorea collettii* Hook root dried powder, using 75% ethanol refluxing for 2 h, vacuum evaporation to give the extractant, adding water and stirring for 4 h, after centrifuge, the aqueous layer was extracted with butanol, further purified on silicon gel column to provide Collettinside III and Collettinside IV. The obtained products can be used as pharmaceutical composition for treating superficial and deep fungus infection.

IT 149664-94-8P, Dongnoside A
(preparation of steroidal saponins as antifungal agent)

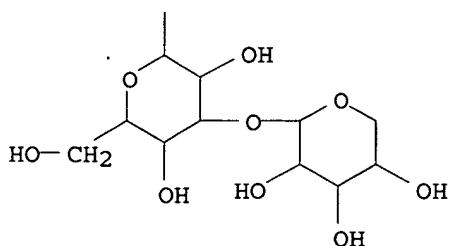
RN 149664-94-8 HCAPLUS

CN $\beta\text{-D-Galactopyranoside}$, $(3\beta, 5\alpha, 25R)\text{-spirostan-3-yl}$
 $O\text{-}6\text{-deoxy-}\alpha\text{-L-mannopyranosyl-}(1 \rightarrow 4)\text{-}O\text{-}\beta\text{-D-glucopyranosyl-}(1 \rightarrow 2)\text{-}O\text{-}[O\text{-}\beta\text{-D-xylopyranosyl-}(1 \rightarrow 3)\text{-}\beta\text{-D-glucopyranosyl-}(1 \rightarrow 3)]\text{-}O\text{-}\beta\text{-D-glucopyranosyl-}(1 \rightarrow 4)\text{-}$ (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM C07J073-00
 ICS A61K031-7048; A61P031-10
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 32, 63
 IT 60478-68-4P, Collettinside III 88668-53-5P, Collettinside IV
 149664-94-8P, Dongnoside A
 (preparation of steroidal saponins as antifungal agent)

L28 ANSWER 7 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1028067 HCAPLUS
 DOCUMENT NUMBER: 143:311939
 TITLE: Isolation of tigogenin pentaglycoside from
 Chlorophytum nimonii
 INVENTOR(S): Vijay, Lakshmi; Pandey, Kartikay; Roy, Raja;
 Joshi, Bhawani Shankar; Kunnath, Padmanabhan
 Madhusudan; Chandra, Ramesh; Srivastava,
 Arvind Kumar; Raina, Deepak; Rastogi, Anil

PATENT ASSIGNEE(S): Kumar
 Council of Scientific and Industrial Research,
 India
 SOURCE: U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005209168	A1	20050922	US 2004-806065	2004 0322
PRIORITY APPLN. INFO.:				US 2004-806065 2004 0322

AB The present invention provides a novel saponin tigogenin
 pentaglycoside isolated from the aerial parts of *C. nimonii* and a
 process for the isolation thereof as well as its use in
 anti-hyperglycemic and hypolipidemic activities. Aerial parts of
C. nimonii were extracted with MeOH and the solvent was removed from
 the extract to give the tigogenin pentaglycoside.

IT 864969-11-9

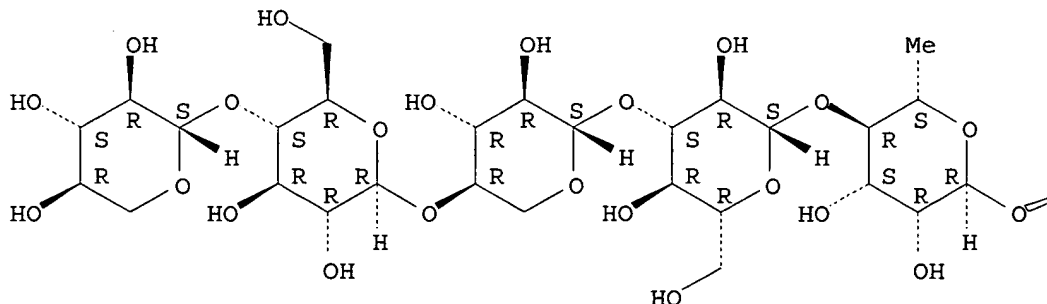
(tigogenin pentaglycoside from *Chlorophytum nimonii*)

RN 864969-11-9 HCAPLUS

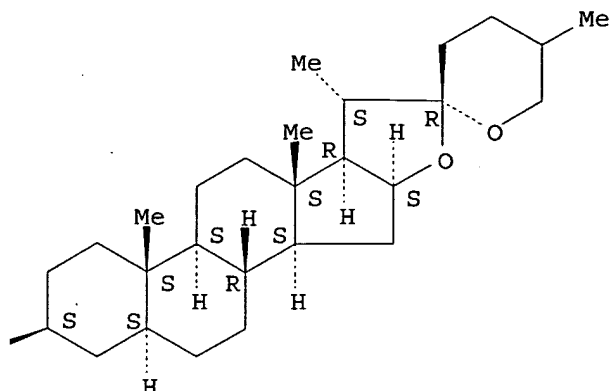
CN α -L-Mannopyranoside, (3 β ,5 α)-spirostan-3-yl
 O- β -D-xylopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-
 (1 \rightarrow 4)-O- β -D-xylopyranosyl-(1 \rightarrow 3)-O- β -D-
 glucopyranosyl-(1 \rightarrow 4)-6-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IC ICM C07J017-00
ICS A61K031-704
INCL 514026000; 536006300
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 1, 11
IT 864969-11-9
(tigogenin pentaglycoside from *Chlorophytum nimonii*)

L28 ANSWER 8 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:921767 HCAPLUS
DOCUMENT NUMBER: 143:432145
TITLE: Pharmacological modulation of lung cancer
cells for potassium ion depletion
AUTHOR(S): Andersson, Britta; Behnam-Motlagh, Parviz;
Henriksson, Roger; Grankvist, Kjell
CORPORATE SOURCE: Department of Medical Biosciences, Clinical
Chemistry, Umeaa University, Umeaa, Swed.
SOURCE: Anticancer Research (2005), 25(4), 2609-2616
CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER: International Institute of Anticancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Background: Depletion of intracellular potassium ions (K⁺) is necessary for cells to shrink, induce DNA fragmentation and activate caspases, events which are features of apoptosis. Materials and Methods: We used 86Rb⁺ as a K⁺ analog to evaluate the possibility of pharmacol. depleting human pulmonary mesothelioma (P31) and small cell lung cancer (U1690) cells of K⁺, for future use in studies of apoptosis induction. Results: The Na⁺, K⁺, 2Cl⁻-cotransport inhibitor bumetanide transiently inhibited 86Rb⁺ influx, but when combined with the Na⁺, K⁺, ATPase pump inhibitor ouabain there was a marked and lasting (up to 6 h) 86Rb⁺ influx inhibition. Cellular K⁺ efflux was augmented by amphotericin B, digitonin and nigericin. Amphotericin B was an effective 86Rb⁺ efflux stimulator with low cytotoxicity, whereas digitonin caused cell detachment and nigericin increased LDH release in the U1690 cell line, indicating considerable toxicity of the drugs. Conclusion: It is possible to efficiently reduce intracellular K⁺ by persistent K⁺ influx inhibition and simultaneous K⁺ efflux stimulation with clin. available drugs.

IT 11024-24-1, Digitonin

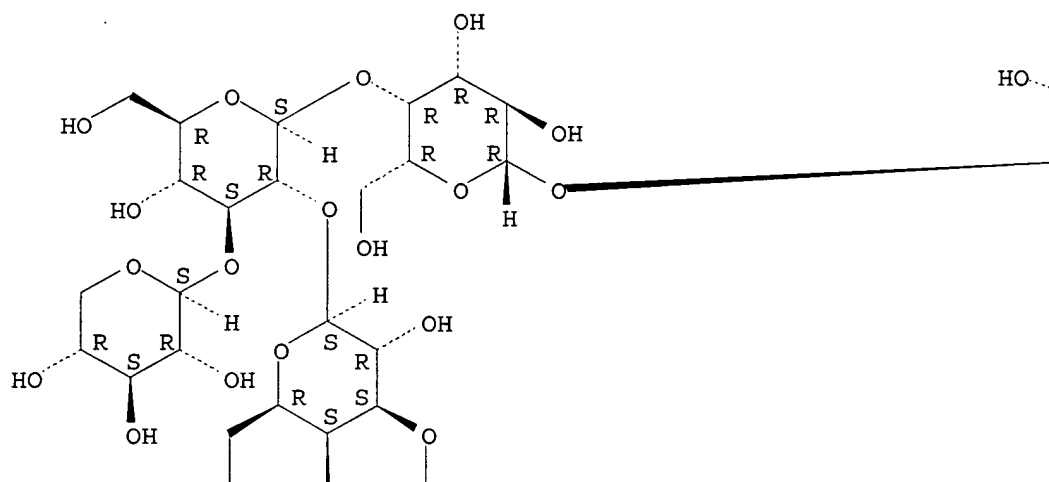
(digitonin caused cell detachment in pulmonary mesothelial P31
and small cell lung cancer U1690 cell line)

RN 11024-24-1 HCAPLUS

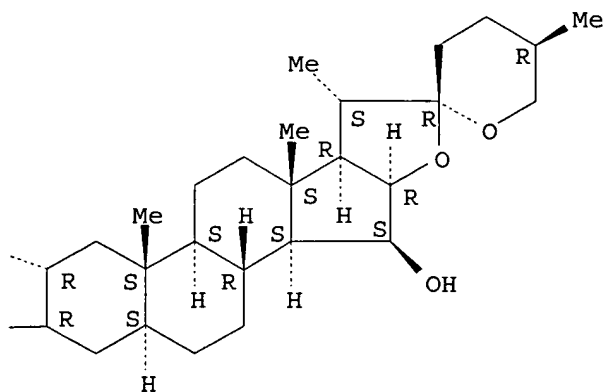
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

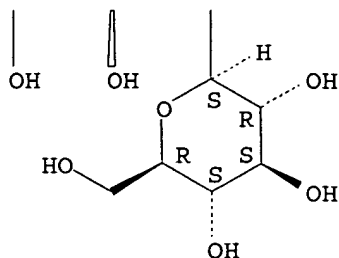
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 1-6 (Pharmacology)

IT 11024-24-1, Digitonin

(digitonin caused cell detachment in pulmonary mesothelial P31 and small cell lung cancer U1690 cell line)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 9 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:612320 HCAPLUS

DOCUMENT NUMBER: 143:130099

TITLE: Isolation, antihyperglycemic and hypolipidemic activities of tigogenin pentaglycoside from Chlorophytum nimonii

INVENTOR(S): Lakshmi, Vijay; Pandey, Kartikay; Roy, Raja; Joshi, Bhawani Shankar; Kunnath, Padmanabhan Madhusudanan; Chandra, Ramesh; Srivastava, Arvind Kumar; Raina, Deepak; Rastogi, Anil Kumar

PATENT ASSIGNEE(S): Council of Scientific & Industrial Research, India

SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063790	A1	20050714	WO 2003-IN475	2003 1231

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003300732	A1	20050721	AU 2003-300732
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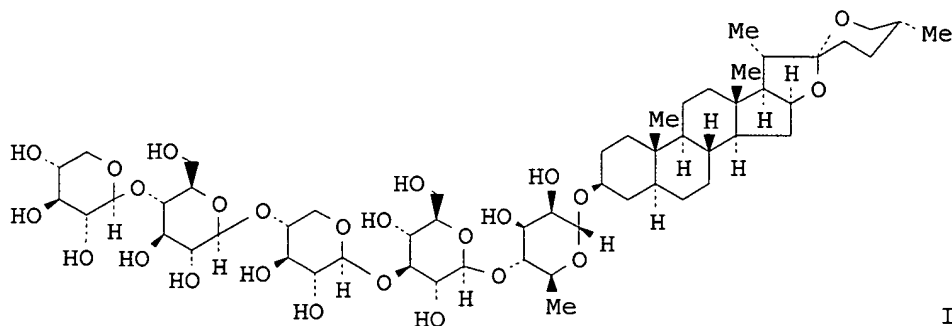
PRIORITY APPLN. INFO.:

WO 2003-IN475

A

2003
12312003
1231

GI



I

AB The invention discloses a process for the isolation of a tigogenin pentaglycoside (I) from the aerial parts of *Chlorophytum nimonii*. The isolated saponin I was evaluated for its therapeutic usage as an antihyperglycemic and hypolipidemic agent.

IT **857886-92-1P**

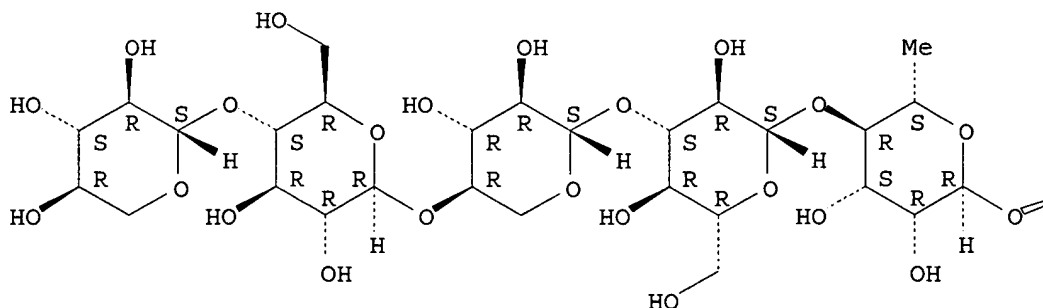
(isolation, anti-hyperglycemic and hypolipidemic activities of tigogenin pentaglycoside from *Chlorophytum nimonii*)

RN 857886-92-1 HCAPLUS

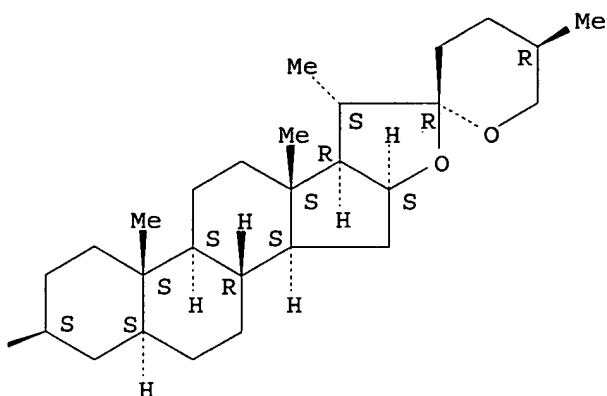
CN α -L-Mannopyranoside, (3 β ,5 α ,25R)-spirostan-3-yl
O- β -D-xylopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-
(1 \rightarrow 4)-O- β -D-xylopyranosyl-(1 \rightarrow 3)-O- β -D-
glucopyranosyl-(1 \rightarrow 4)-6-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IC ICM C07J071-00
 ICS A61K031-58; A61P003-06
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 1, 33, 63
 IT 857886-92-1P

(isolation, anti-hyperglycemic and hypolipidemic activities of
 tigogenin pentaglycoside from *Chlorophytum nimonii*)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L28 ANSWER 10 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:589488 HCAPLUS

DOCUMENT NUMBER: 143:465771

TITLE: A methodology to study intracellular
 distribution of nanoparticles in brain
 endothelial cells

AUTHOR(S): Garcia-Garcia, Elizabeth; Andrieux, Karine;
 Gil, Sophie; Kim, Hyun Ryoung; Doan, Trung Le;
 Desmaele, Didier; d'Angelo, Jean; Taran,
 Frederic; Georgin, Dominique; Couvreur,
 Patrick

CORPORATE SOURCE: Laboratory of Biopharmacy and Pharmaceutical
 Technology, UMR CNRS 8612, Faculty of
 Pharmacy, University of Paris-XI,
 Chatenay-Malabry, 92296, Fr.

SOURCE: International Journal of Pharmaceutics (2005),
 298(2), 310-314

CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cell internalization and intracellular distribution of PEG-coated
 polyhexadecylcyanoacrylate (PEG-PHDCa) nanoparticles in rat brain
 endothelial cells (RBEC) have been investigated. A cell
 fractionation method has been developed based on the selective
 permeabilization of RBEC plasma membrane by digitonin. By
 interacting with membrane cholesterol, digitonin creates pores
 allowing the release of soluble and diffusible species outside the
 cell. The selectivity of plasma membrane permeabilization was

controlled by using compartment markers such as lactate dehydrogenase (LDH) for cytoplasm and cathepsin B for lysosomes. An optimal digitonin concentration of 0.003% (w/v) has been identified to induce a pattern of membrane permeabilization corresponding to the extraction of 72% LDH and less than 15% of Cathepsin B. Membrane permeabilization at this digitonin concentration allows one to distinguish between the cell cytoplasm and its endo/lysosomal fraction. This methodol. was applied to investigate the intracellular distribution of the nanoparticles after their incubation with the RBEC. The results showed that PEG-PHDCA nanoparticles were able to be internalized to a higher extent than PHDCA nanoparticles (after 20 min incubation). Addnl., these nanoparticles displayed different patterns of intracellular capture, depending on their sp. surface composition: PEG-PHDCA nanoparticles were 48% in the plasma membrane, 24% in the cytoplasm, 20% in vesicular compartments and 8% associated with the fraction of the nucleus, the cytoskeleton and caveolae suggesting that PEG-PHDCA nanoparticle uptake by RBEC is specific and presumably due to endocytosis. Confocal microscopy studies confirmed the cellular uptake of PEG-PHDCA nanoparticles.

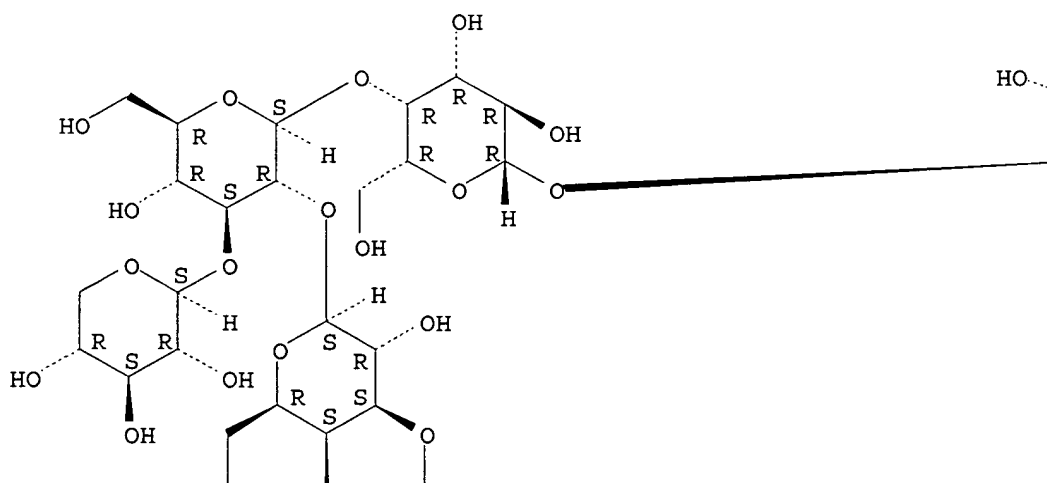
IT 11024-24-1, Digitonin
(methodol. to study intracellular distribution of nanoparticles in brain endothelial cells)

RN 11024-24-1 HCAPLUS

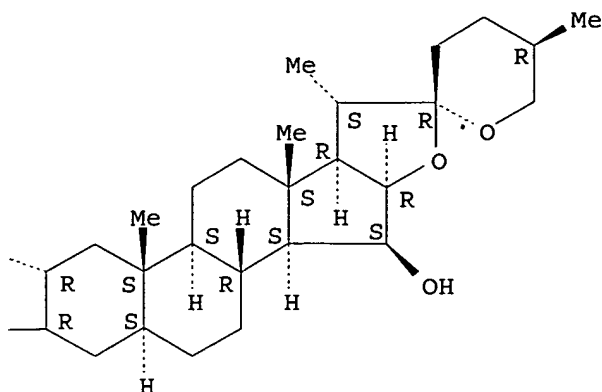
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(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O- β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

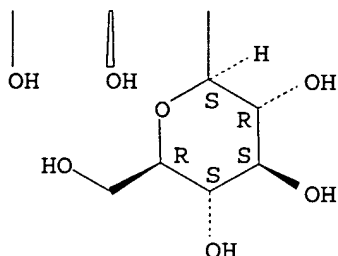
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 63-5 (Pharmaceuticals)

IT 11024-24-1, Digitonin

(methodol. to study intracellular distribution of nanoparticles
in brain endothelial cells)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 11 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:857373 HCAPLUS

DOCUMENT NUMBER: 141:337758

TITLE: Water-soluble formulations of Digitalis
glycosides for treating cell-proliferative and
other diseases

INVENTOR(S): Singh, Chandra; Streeper, Robert

PATENT ASSIGNEE(S): Azaya Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087121	A2	20041014	WO 2004-US9467	2004

0329

WO 2004087121 A3 20041223
 WO 2004087121 C1 20051110

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, US
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
 CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM,
 GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005026849 A1 20050203 US 2004-812316

2004
 0329

PRIORITY APPLN. INFO.:

US 2003-459466P

P

2003
 0328

AB A pharmaceutical composition contains at least one Digitalis glycosides such as oleandrin, Odoroside-A, neriifolin, Proscillaridin-A, methylproscillaridin-A, digitoxin, digoxin and amorphous cyclodextrins. In another aspect, the present invention provides an effective method to reduce the growth of cancers or reducing the incidence of metastases. Thus, a formulation contained oleandrin 0.1, sodium ascorbate 0.5, ascorbic acid 0.04, hydroxypropyl β -cyclodextrin 2.5, sodium methylparaben 0.1, sodium propylparaben 0.01, trehalose dihydrate 7.0, and water qs to 100%.

IT 11024-24-1, DiGitonin

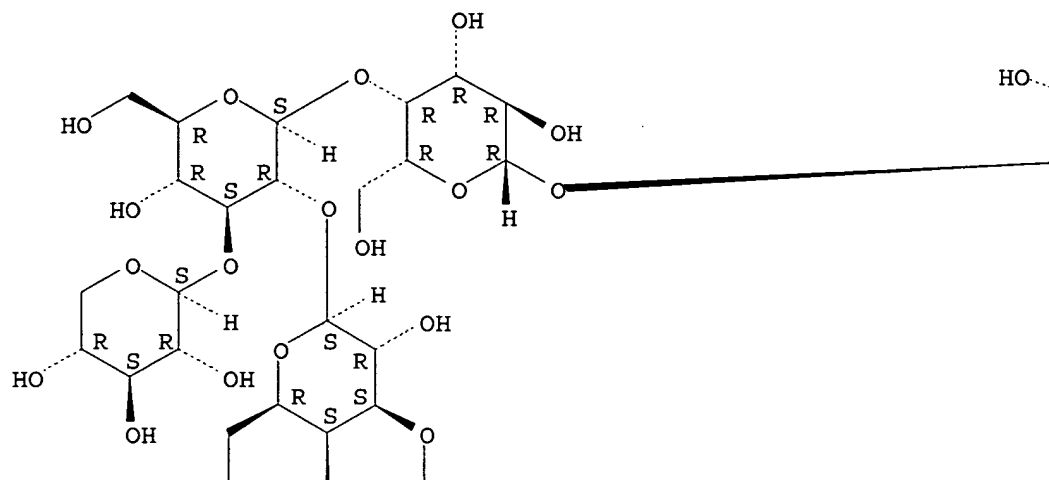
(water-soluble formulations of Digitalis glycosides for treating cell-proliferative diseases)

RN 11024-24-1 HCAPLUS

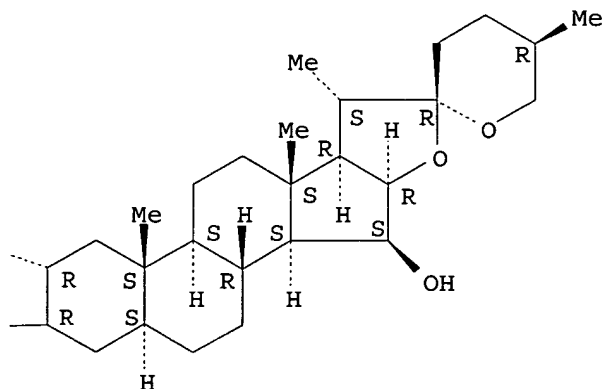
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

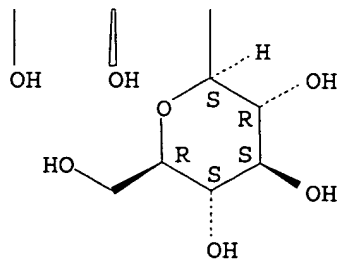
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K031-00
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1
 IT 50-70-4, Sorbitol, biological studies 50-81-7, Ascorbic acid,
 biological studies 50-99-7, Glucose, biological studies
 57-48-7, Fructose, biological studies 57-50-1, Sucrose,
 biological studies 63-42-3, Lactose 68-04-2, Sodium citrate
 69-65-8, Mannitol 71-63-6, Digitoxin 77-52-1, Ursolic acid
 94-13-3, Propylparaben 99-20-7, Trehalose 99-76-3,
 Methylparaben 121-54-0, Benzethonium chloride 124-99-2,
 Scillaren A 127-09-3, Sodium acetate 134-03-2, Sodium
 ascorbate 458-37-7, Curcumin 458-37-7D, Curcumin, derivs.
 465-16-7, Oleandrin 465-16-7D, Oleandrin, hydroxypropyl
 cyclodextrin complexes 465-90-7, Bufotalidin 466-06-8,
 Proscillaridin A 466-06-8D, Proscillaridin A, hydroxypropyl
 cyclodextrin complexes 466-07-9, Neriifolin 471-95-4,
 Bufotalin 501-36-0, Resveratrol 501-36-0D, Resveratrol,
 derivs. 507-59-5, Scillirosidin 507-60-8, Scilliroside
 508-75-8, Convallatoxin 508-77-0, Cymarin 510-58-7,
 Scilliglucoside 510-62-3, Scilliglucosidin 532-32-1, Sodium
 benzoate 560-54-3, Strophanthidol 560-67-8, Honghelin
 562-21-0, Bufotalinin 582-25-2, Potassium benzoate 630-60-4,
 Ouabain 868-18-8, Sodium tartrate 1182-87-2, Peruvoside
 1200-22-2, α -Lipoic acid 1393-22-2, Scillaren B
 1393-46-0, Thevetosin 1399-71-9, Helleborin 1405-76-1, Gitalin
 1986-70-5, Calotropin 4562-36-1, Gitoxin 4589-95-1,
 DeacetylTanghinin 5026-62-0, Sodium methylparaben 6138-23-4,
 Trehalose dihydrate 7044-33-9, Cheirotoxin 7558-79-4, Dibasic
 sodium phosphate 7558-80-7, Monobasic sodium phosphate
 7585-39-9D, β -Cyclodextrin, hydroxypropyl ethers 7681-38-1,
 Sodium bisulfate 7681-57-4, Sodium metabisulfite 8002-01-5,
 Adonidin 9000-69-5, Pectin 9000-69-5D, Pectin, derivs.
 9007-56-1, Echujin 9041-22-9, β -D-Glucan 9041-22-9D,
 β -D-Glucan, aminated, carboxymethylated, phosphorylated and
 sulfated 9042-14-2, Dextran sulfate 11022-62-1, Glucobovoside
 A 11024-24-1, DiGitonin 11028-14-1, Bovoside A
 11032-44-3, Bovoruboside 12619-70-4, Cyclodextrin 12708-27-9,
 Hongheloside G 12738-19-1, Odoroside-A 13137-64-9, Periplocin
 13289-18-4, Hellebrin 13473-51-3, Convalloside 17179-38-3,
 Cheiroside A 17465-86-0D, γ -Cyclodextrin, hydroxypropyl
 ethers 17575-20-1, Lanatoside A 17575-21-2, Lanatoside B
 17575-22-3, Lanatoside C 17651-61-5, Adonitoxin 18810-25-8,
 Odoroside H 20231-81-6, Uzarin 20830-75-5, Digoxin
 21857-63-6, Scillirubrosidin 23604-99-1, Scillirubroside
 23605-05-2, α -Antiarin 25390-16-3, Tanghinin 25395-32-8,
 Acetyldigitoxin 25633-33-4, Cerberin 27127-79-3, Thevetin B
 28591-01-7, F-Gitonin 30685-43-9, β -Methyl digoxin
 31962-94-4, α -Methyl digoxin 32476-67-8, PeriploCymarin
 33396-37-1, Methyl proscillaridin A 35285-69-9, Sodium
 propylparaben 37933-66-7, Thevetin A 38076-40-3, Nigrescin
 38098-46-3, Monothioglycerol 51008-91-4, Acetyloleandrin
 57364-74-6, Cotyledoside 98633-61-5, SarmentoCymarin
 101329-50-4, Bryotoxin A 102694-24-6, Tyledoside A
 102694-25-7, Tyledoside B 102694-26-8, Tyledoside D
 102694-27-9, Tyledoside F 102694-28-0, Tyledoside G
 102694-29-1, Tyledoside C 105608-31-9, Bryotoxin B
 105608-32-0, Bryotoxin C 105801-16-9, Orbicuseide A
 105801-17-0, Orbicuseide B 105822-21-7, Orbicuseide C
 110237-76-8, Rubellin 116988-19-3, Thesiuside 125339-13-1,

Bryophyllin B 155023-39-5, Kalanchoside 773885-55-5, Euonoside 773885-57-7, Euobioside 773885-59-9, Euomonoside 773885-60-2, Lancetoxin A 773885-61-3, Lancetoxin B 773885-62-4, allo-Glaucotoxin 773885-63-5, Corotoxin 773885-64-6, Coroglaucin 773885-66-8, Glaucorin 773885-67-9, Scilliacinoside 773885-68-0, Adonin 773885-91-9, Pseudobufotalin
(water-soluble formulations of Digitalis glycosides for treating cell-proliferative diseases)

L28 ANSWER 12 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:354680 HCAPLUS
 DOCUMENT NUMBER: 140:363041
 TITLE: Liposomal formulations of digitalis glycosides for treating cell-proliferative and other diseases
 INVENTOR(S): Singh, Chandra U.
 PATENT ASSIGNEE(S): Azaya Therapeutics Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 21 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 2004082521	A1	20040429	US 2003-404902	

2003
0331

PRIORITY APPLN. INFO.: US 2002-368880P P
 2002
0329

AB The present invention provides methods, prepns., and uses of a variety of liposomal-digitalis glycoside compns. The present invention also provides protein-stabilized nanoparticle formulations containing liposomal-digitalis glycosides such as Oleandrin, digitoxin, and digoxin with reduced toxicity, high drug to lipid ratio, long circulating time in the blood stream and the ability to deliver the drug to tumor sites. In another aspect, the present invention provides an effective method to reduce the growth of cancers or reduce the incidence of metastases.

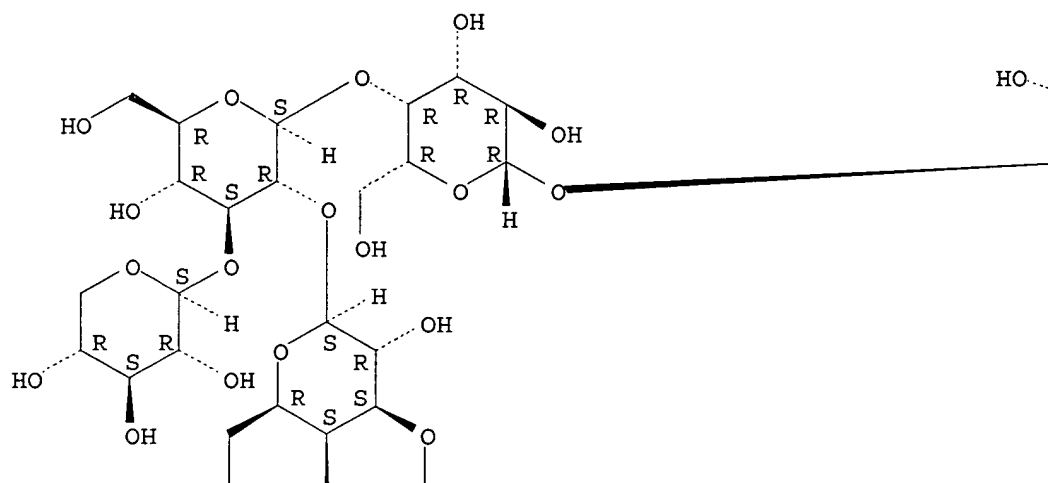
IT 11024-24-1, Digitonin
 (liposomal formulations of digitalis glycosides for treating cell-proliferative and other diseases)

RN 11024-24-1 HCAPLUS

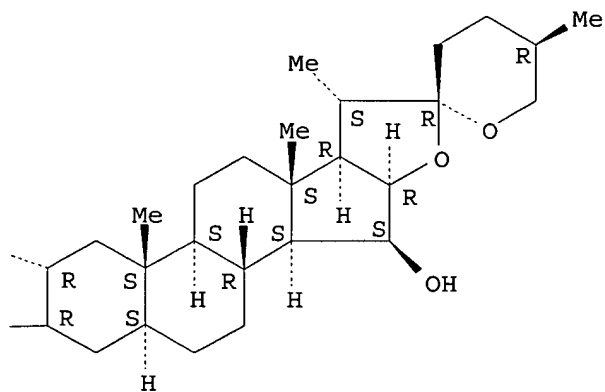
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxySpirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

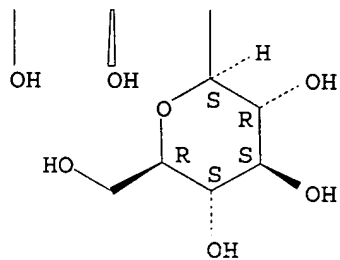
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K031-704
ICS A61K009-127
INCL 514026000; 424450000
CC 63-6 (Pharmaceuticals)
IT 71-63-6, Digitoxin 124-99-2, Scillaren A 465-16-7, Oleandrin
465-90-7, Bufotalidin 466-06-8, Proscillaridin A 466-07-9
471-95-4, Bufotalin 507-59-5, Scillirosidin 507-60-8,
Scilliroside 508-75-8, Convallatoxin 508-77-0, Cymarin
510-58-7, Scilliglaucoside 510-62-3, Scilliglaucosidin
560-54-3, Strophanthidol 560-67-8, Honghelin 562-21-0,
Bufotalinin 630-60-4, Ouabain 1182-87-2, Peruvoside
1393-22-2, Scillaren B 1393-46-0, Thevetosin 1399-71-9,
Helleborin 1405-76-1, Gitalin 1986-70-5, Calotropin
4562-36-1, Gitoxin 4589-95-1, Deacetyltanghinin 7044-33-9,
Cheirototoxin 8002-01-5, Adonidin 9007-56-1, Echujin
11005-63-3, Strophanthin 11022-62-1, Glucobovoside A
11024-24-1, Digitonin 11028-14-1, Bovoside A
11032-44-3, Bovoruboside 12708-27-9, Hongheloside g
12738-19-1, Odoroside a 13137-64-9, Periplocin 13289-18-4,
Hellebrin 13473-51-3, Convalloside 17179-38-3, Cheiroside a
17575-20-1, Lanatoside a 17575-21-2, Lanatoside b 17575-22-3,
Lanatoside c 17651-61-5, Adonitoxin 18810-25-8, Odoroside h
20231-81-6, Uzarin 20830-75-5, Digoxin 21857-63-6,
Scillirubrosidin 23604-99-1, Scillirubroside 23605-05-2,
 α -Antiarin 25390-16-3, Tanghinin 25395-32-8, Acetyl
digitoxin 25633-33-4, Cerberin 27127-79-3, Thevetin b
28591-01-7 30685-43-9 31962-94-4, α Methyl digoxin
32476-67-8, Periplocymarin 37933-66-7, Thevetin a 38076-40-3,
Nigrescin 51008-91-4, Acetyl oleandrin 98633-61-5,
Sarmenocymarin 101329-50-4, Bryotoxin a 102694-24-6,
Tylosedoside A 102694-25-7, Tylosedoside B 102694-26-8, Tylosedoside
D 102694-27-9, Tylosedoside F 102694-28-0, Tylosedoside G
102694-29-1, Tylosedoside C 105608-31-9, Bryotoxin b
105608-32-0, Bryotoxin c 105801-16-9, Orbicuse A
105801-17-0, Orbicuse B 105822-21-7, Orbicuse C
110237-76-8, Rubellin 116988-19-3, Thesiuside 125339-13-1,
Bryophyllin b 155023-39-5, Kalanchoside
(liposomal formulations of digitalis glycosides for treating
cell-proliferative and other diseases)

L28 ANSWER 13 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:599400 HCAPLUS

DOCUMENT NUMBER: 140:104437

TITLE: Deaggregation behavior of saponin compounds

AUTHOR(S): Ji, Guo-Zhen; Zhang, Guang-Ming; Tang, Liang;
Jiang, Xi-Kui

CORPORATE SOURCE: Shanghai Institute of Organic Chemistry,
Chinese Academy of Sciences, Shanghai, 200032,
Peop. Rep. China

SOURCE: Huaxue Xuebao (2003), 61(7), 970-975
CODEN: HHHHPA4; ISSN: 0567-7351

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The deaggregation behavior of saponin compds. was studied in Φ
= 0.60 DX-H₂O solution by fluorescence spectroscopy. The
relationship of structure and deaggregating abilities of saponin
compds. has been discussed. In comparison with the results of
cell adhesion expts., the relationship of the deaggregating

abilities for saponin compds. with their biol. behavior has been discussed.

IT 646533-15-5

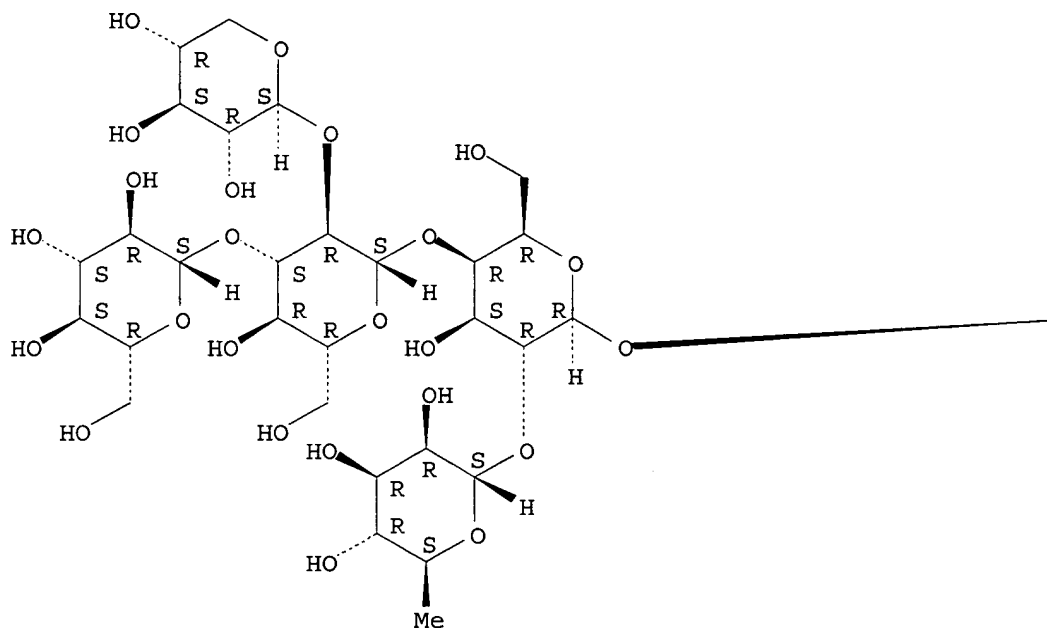
(deaggregation behavior of saponin compds.)

RN 646533-15-5 HCAPLUS

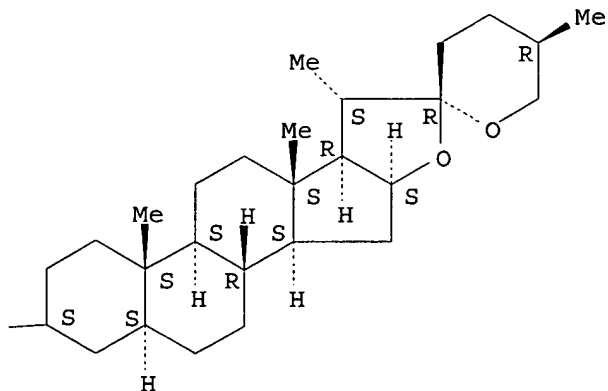
CN β -D-Galactopyranoside, (3 β ,5 α ,25R)-spirostan-3-yl
O- β -D-glucopyranosyl-(1 \rightarrow 3)-O-[β -D-xylopyranosyl-(1 \rightarrow 2)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 1-3 (Pharmacology)

Section cross-reference(s): 33

IT 434-13-9, Lithocholic acid 1405-86-3, Glycyrrhizic acid
19057-60-4, Dioscine 20736-08-7, Saikosaponin C 20736-09-8,
Saikosaponin A 42294-03-1, Glycyrrhizic acid monopotassium salt
155560-12-6 441017-81-8 646533-13-3 646533-15-5
646533-16-6 646533-17-7
(deaggregation behavior of saponin compds.)

L28 ANSWER 14 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:302325 HCAPLUS

DOCUMENT NUMBER: 138:365413

TITLE: CAY-1, a novel antifungal compound from
cayenne pepper

AUTHOR(S): Renault, S.; De Lucca, A. J.; Boue, S.; Bland,
J. M.; Vigo, C. B.; Selitrennikoff, C. P.

CORPORATE SOURCE: MycoLogics, Inc., Aurora, CO, 80010, USA

SOURCE: Medical Mycology (2003), 41(1), 75-82

CODEN: MEMYFR; ISSN: 1369-3786

PUBLISHER: BIOS Scientific Publishers Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB CAY-1, a novel saponin from *Capsicum frutescens* (com. known as
cayenne pepper) was investigated to determine its in vitro antifungal
activity, mechanism of action and mammalian cell cytotoxicity.
CAY-1 was active against 16 different fungal strains, including
Candida spp. and *Aspergillus fumigatus* [min. inhibitory concns.
(MIC) ranging from 4 to 16 µg ml⁻¹], and was especially active
against *Cryptococcus neoformans* (90% inhibition at 1 µg ml⁻¹).
Synergistic activity was also observed between CAY-1 and amphotericin
B against *Candida albicans* and *A. fumigatus*. No significant
cytotoxicity was demonstrated when CAY-1 was tested against 55
mammalian cell lines at up to 100 µg ml⁻¹. Importantly, CAY-1
appears to act by disrupting the membrane integrity of fungal
cells.

IT 318277-23-5P, CAY 1

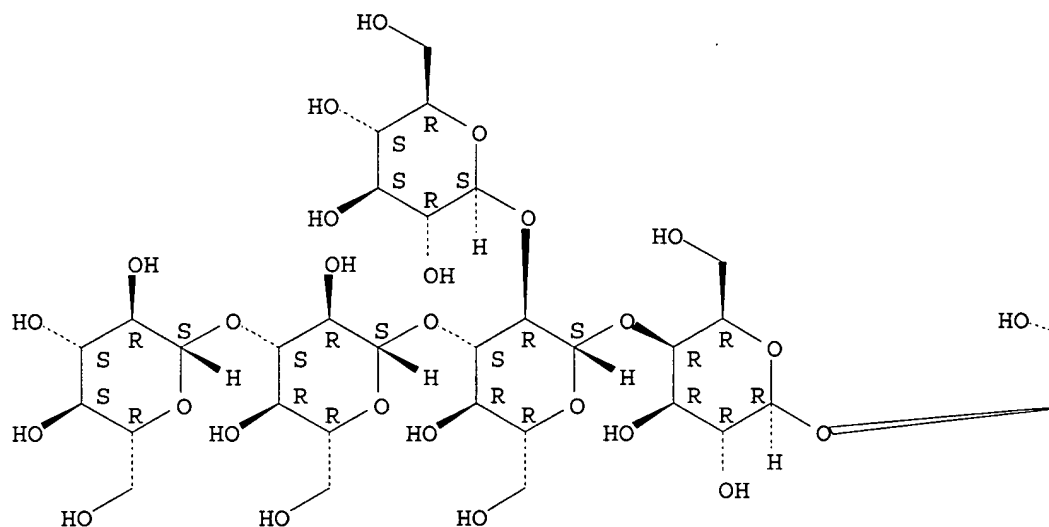
(in vitro antifungal activity of saponin CAY-1 from cayenne
pepper and synergism with amphotericin B)

RN 318277-23-5 HCAPLUS

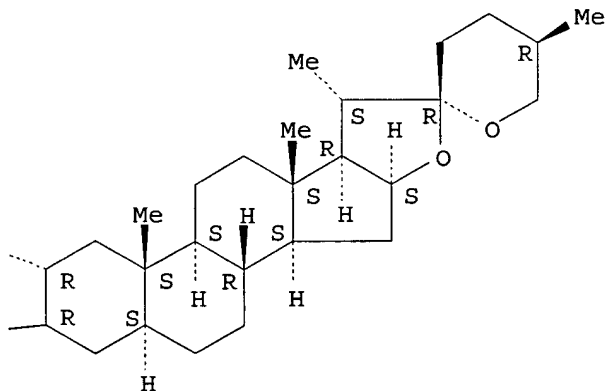
CN β-D-Galactopyranoside, (2α,3β,5α,25R)-2-
hydroxyspirostan-3-yl O-β-D-glucopyranosyl-(1→2)-O-[O-
β-D-glucopyranosyl-(1→3)-β-D-glucopyranosyl-
(1→3)]-O-β-D-glucopyranosyl-(1→4)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 10-5 (Microbial, Algal, and Fungal Biochemistry)

Section cross-reference(s): 63

IT 318277-23-5P, CAY 1

(in vitro antifungal activity of saponin CAY-1 from cayenne pepper and synergism with amphotericin B)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 15 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:430096 HCAPLUS

DOCUMENT NUMBER: 138:32823

TITLE: CAY-1, a fungicidal saponin from Capsicum sp. fruit

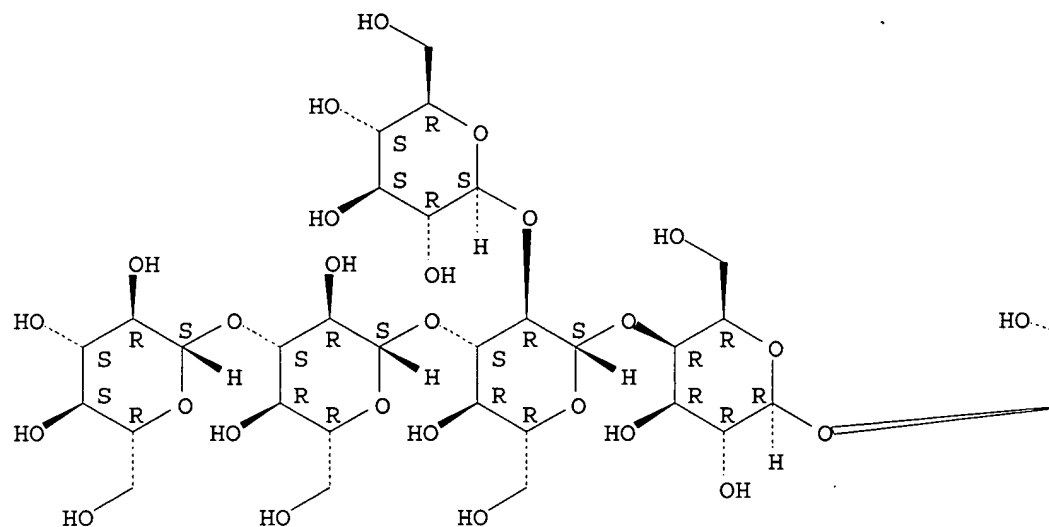
AUTHOR(S): De Lucca, A. J.; Bland, J. M.; Vigo, C. B.;
Cushion, M.; Selitrennikoff, C. P.; Peter, J.;
Walsh, T. J.
CORPORATE SOURCE: Southern Regional Research Center,
Agricultural Research Service, US Department
of Agriculture, New Orleans, LA, 70124, USA
SOURCE: Medical Mycology (2002), 40(2), 131-137
CODEN: MEMYFR; ISSN: 1369-3786
PUBLISHER: BIOS Scientific Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Saponins are steroidal or terpenoid-based glycosides with surface active properties. A steroidal saponin, CAY-1, with a mol. weight of 1243.35 Da, was isolated and purified to homogeneity from com. available dry, ground fruit of *Capsicum frutescens*. CAY-1 was shown to be a potent fungicide for the germinating conidia of *Aspergillus flavus*, *A. fumigatus*, *A. parasiticus* and *A. niger* with species-dependent LD90 values between 3 and 20 μ M. Activity against some *Aspergillus* species was affected by the test medium used. In vitro assays, CAY-1 was effective against *Pneumocystis carinii* (IC50: 9.5 μ M) and *Candida albicans* (IC90: 6.2 μ M). CAY-1 had no effect on the viability of the nongerminating conidia of the two filamentous fungi, *P. carinii* and *C. albicans*, nor on the conidial type of *Fusarium oxysporum*. It was ineffective against the bacteria *Enterobacter agglomerans*, *Bacillus subtilis*, *Escherichia coli* and *Staphylococcus aureus*. CAY-1 was not cytotoxic to A 549 lung carcinoma cells or HeLa cells at effective fungicidal concns. The results indicate that CAY-1 is an effective fungicide for *Aspergillus* species, *C. albicans* and *P. carinii* at concns. below the threshold for mammalian cell toxicity.

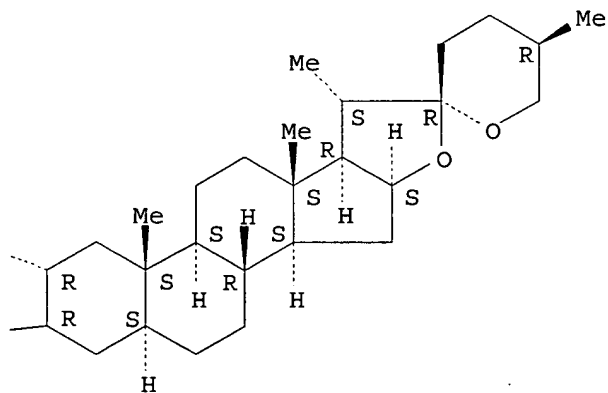
IT 318277-23-5P, CAY-1
(fungicidal effects of CAY-1 saponin from *Capsicum* sp. fruit)
RN 318277-23-5 HCAPLUS
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,25R)-2-
hydroxyspirostan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O-
 β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-glucopyranosyl-
(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 1-5 (Pharmacology)

IT 318277-23-5P, CAY-1

(fungicidal effects of CAY-1 saponin from Capsicum sp. fruit)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 16 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:133839 HCAPLUS

DOCUMENT NUMBER: 136:268029

TITLE: Shock wave-mediated molecular delivery into cells

AUTHOR(S): Kodama, Tetsuya; Doukas, Apostolos G.;
Hamblin, Michael R.

USHA SHRESTHA EIC 1600 REM 1A64

CORPORATE SOURCE: BAR314B, Wellman Laboratories of
Photomedicine, and Department of Dermatology,
Massachusetts General Hosptial, Harvard
Medical School, Boston, MA, 02114, USA

SOURCE: Biochimica et Biophysica Acta, Molecular Cell
Research (2002), 1542(1-3), 186-194
CODEN: BBAMCO; ISSN: 0167-4889

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A single shock wave generated by a shock tube is able to
effectively deliver macromols. such as fluorescein
isothiocyanate-dextran into the cytoplasm of living cells without
causing cytotoxicity. We report on the effect of varying the mol.
weight of the dextran and the number of shock waves on the efficiency of
delivery into a cancer cell line. The fraction of cells
permeabilized and the total fluorescence delivered were measured
by flow cytometry, and the cellular viability by a tetrazolium
assay on adherent cells and these values were compared to cell
permeabilization using digitonin. Shock waves can deliver mols.
of up to 2000000 mol. weight into the cytoplasm of cells without
toxicity and may have applications in gene therapy.

IT 11024-24-1, Digitonin

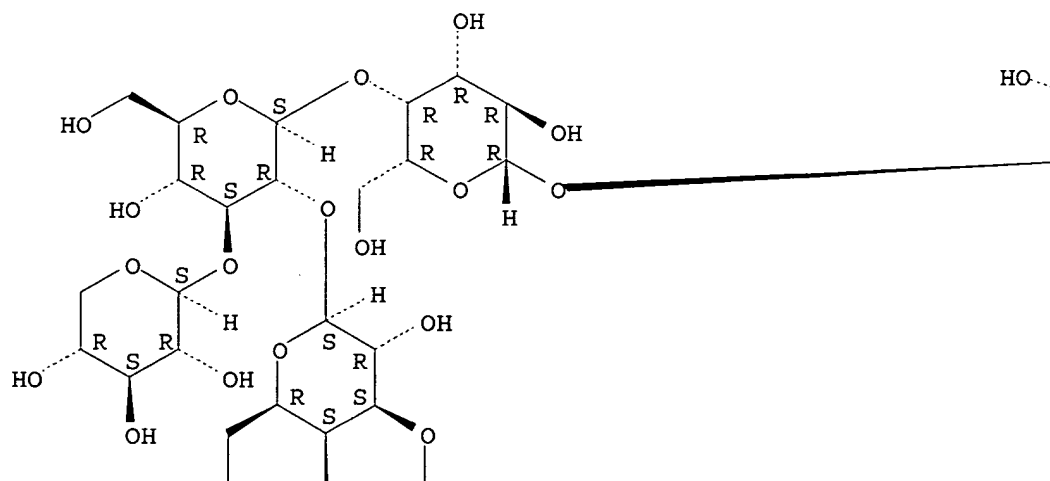
(shock wave-mediated mol. delivery into cells)

RN 11024-24-1 HCAPLUS

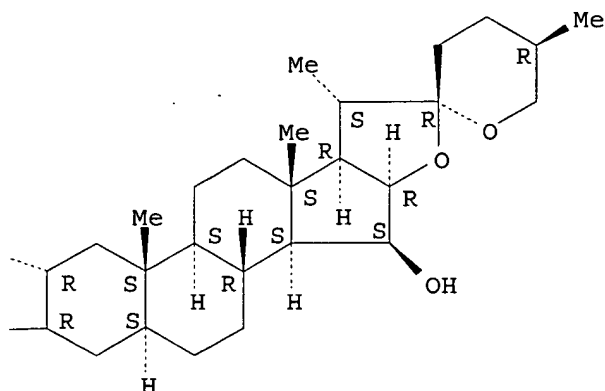
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

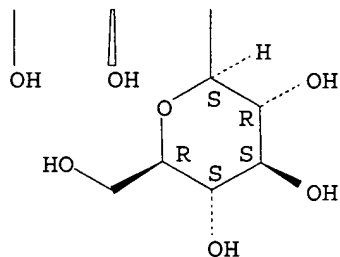
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 63-5 (Pharmaceuticals)
 IT 11024-24-1, Digitonin 60842-46-8, FITC-dextran
 (shock wave-mediated mol. delivery into cells)
 REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L28 ANSWER 17 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:879761 HCAPLUS
 DOCUMENT NUMBER: 136:144856
 TITLE: Two steroidal saponins from *Camassia cusickii*
 induce L1210 cell death through the apoptotic
 mechanism
 AUTHOR(S): Candra, Ellyawati; Matsunaga, Kimihiro;
 Fujiwara, Hironori; Mimaki, Yoshihiro;
 Sashida, Yutaka; Yamakuni, Tohru; Ohizumi,
 Yasushi
 CORPORATE SOURCE: Department of Pharmaceutical Molecular
 Biology, Graduate School of Pharmaceutical
 Sciences, Tohoku University, Sendai, 980-8578,
 Japan
 SOURCE: Canadian Journal of Physiology and
 Pharmacology (2001), 79(11), 953-958
 CODEN: CJPPA3; ISSN: 0008-4212
 PUBLISHER: National Research Council of Canada
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Two steroidal saponins, tigogenin hexasaccharide-1 (TGHS-1, (25R)-5 α -spirostan-3 β -yl-4-O-[2-O-[3-O-(α -L-rhamnopyranosyl)- β -D-glucopyranosyl]-3-O-[4-O-(α -L-rhamnopyranosyl)- β -D-glucopyranosyl]- β -D-glucopyranosyl]- β -D-galactopyranoside) and tigogenin hexasaccharide-2 (TGHS-2, (25R)-5 α -spirostan-3 β -yl-4-O-[2-O-[3-O-(β -D-glucopyranosyl)- β -D-glucopyranosyl]-3-O-[4-O-(α -L-rhamnopyranosyl)- β -D-glucopyranosyl]- β -D-glucopyranosyl]- β -D-galactopyranoside), were isolated from the fresh bulbs of *Camassia cusickii*. In murine leukemic L1210 cells, both compds. showed cytotoxicity with an EC50 value of 0.06 μ M. The morphol. observation revealed that TGHS-1 and TGHS-2 induced shrinkage in cell soma and chromatin condensation, suggesting apoptotic cell death. The cell death was confirmed to be apoptosis by Annexin V binding to phosphatidylserine in the cell membrane and excluding propidium iodide. A typical apoptotic DNA ladder and the cleavage of caspase-3 were observed after treatment with TGHS-1 and TGHS-2. In the presence of both the compds., cells with sub-G1 DNA content were detected by flow cytometric anal., indicating that TGHS-1 and TGHS-2 (each EC50 value of 0.1 μ M) are the most powerful apoptotic saponins known. These results suggest that TGHS-1 and TGHS-2 induce apoptotic cell death through caspase-3 activation.

IT 112516-09-3P 140674-52-8P

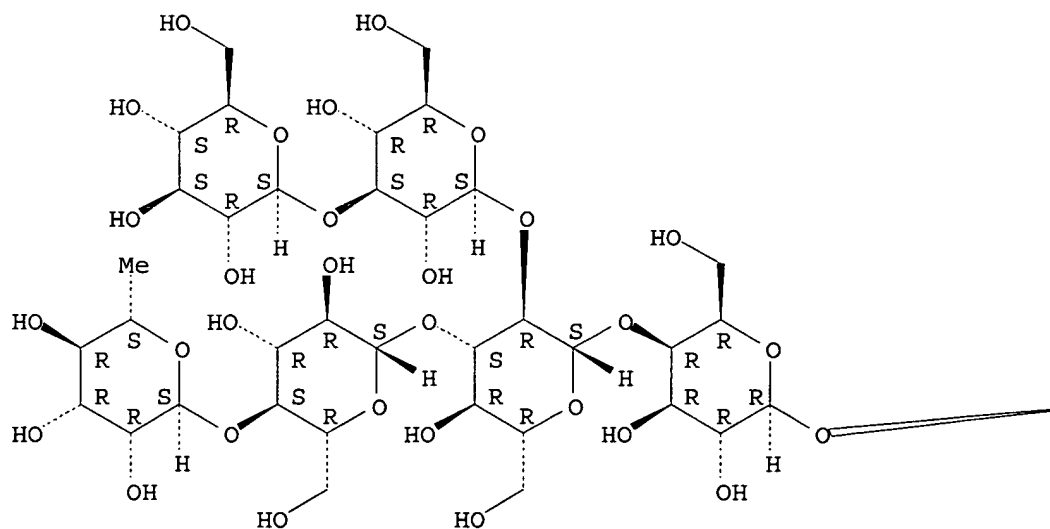
(two steroidal saponins from *Camassia cusickii* induce L1210 cell death through apoptotic mechanism)

RN 112516-09-3 HCAPLUS

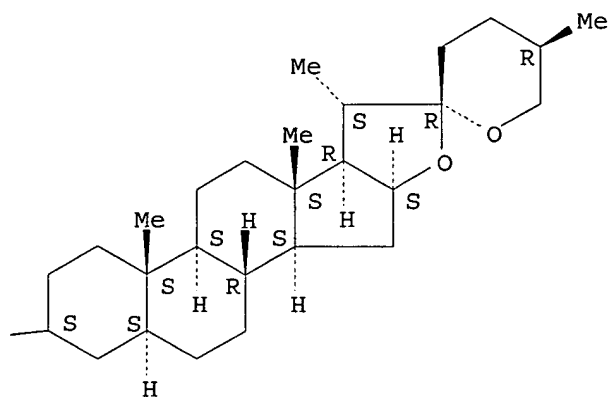
CN β -D-Galactopyranoside, (3 β ,5 α ,25R)-spirostan-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)-O- β -D-
glucopyranosyl-(1 \rightarrow 3)-O-[O- β -D-glucopyranosyl-
(1 \rightarrow 3)- β -D-glucopyranosyl-(1 \rightarrow 2)]-O- β -D-
glucopyranosyl-(1 \rightarrow 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

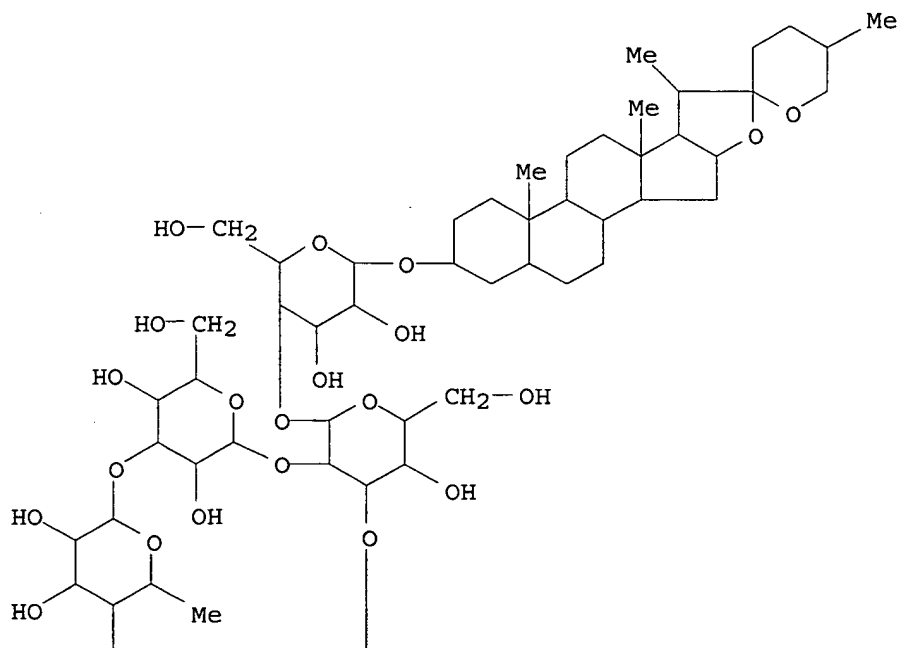


PAGE 1-B

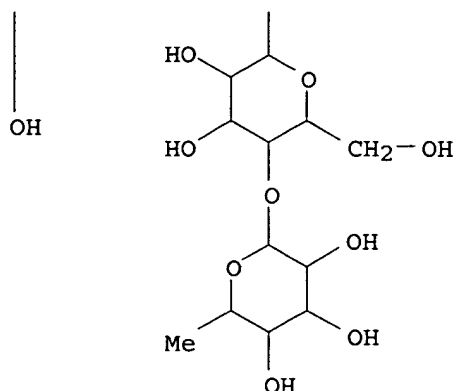


RN 140674-52-8 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,25R)-spirostan-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 3)-O- β -D-
 glucopyranosyl-(1 \rightarrow 2)-O-[O-6-deoxy- α -L-mannopyranosyl-
 (1 \rightarrow 4)- β -D-glucopyranosyl-(1 \rightarrow 3)]-O- β -D-
 glucopyranosyl-(1 \rightarrow 4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



CC 1-6 (Pharmacology)
 Section cross-reference(s): 11
 IT 112516-09-3P 140674-52-8P
 (two steroidal saponins from *Camassia cusickii* induce L1210
 cell death through apoptotic mechanism)
 REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

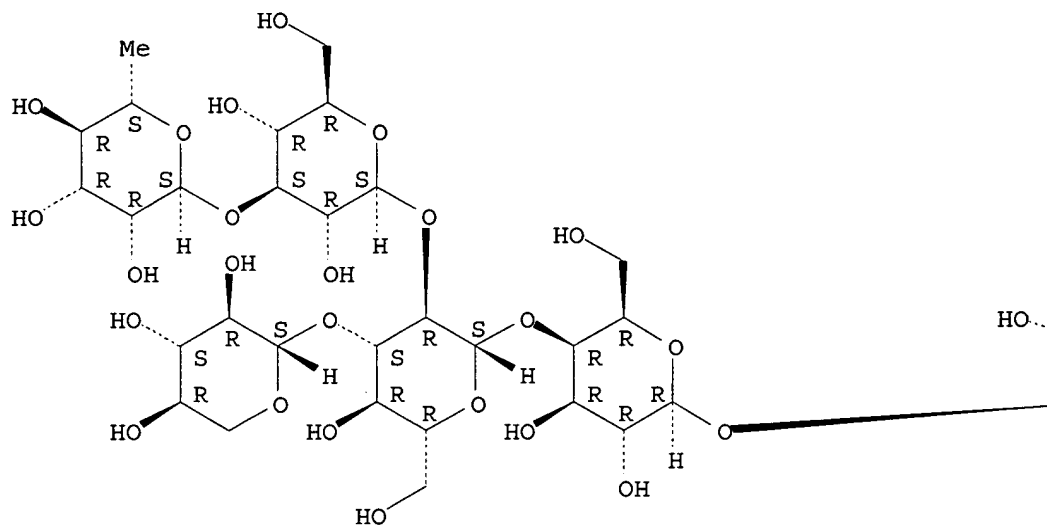
L28 ANSWER 18 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:812404 HCAPLUS
 DOCUMENT NUMBER: 136:128581
 TITLE: Cytotoxic activities and structure-cytotoxic
 relationships of steroidal saponins
 AUTHOR(S): Mimaki, Yoshihiro; Yokosuka, Akihito; Kuroda,
 Minpei; Sashida, Yutaka
 CORPORATE SOURCE: Laboratory of Medicinal Plant Science, School
 of Pharmacy, Tokyo University of Pharmacy and
 Life Science, Tokyo, 192-0392, Japan
 SOURCE: Biological & Pharmaceutical Bulletin (2001),
 24(11), 1286-1289
 CODEN: BPBLEO; ISSN: 0918-6158
 PUBLISHER: Pharmaceutical Society of Japan
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 136:128581

AB We have systematically examined the cytotoxic activities of the
 steroidal saponins mainly isolated from the Liliaceae plants
 against HL-60 human promyelocytic leukemia cells and found several
 structure-activity relationships. Some steroidal saponins
 evaluated in the assay system showed considerable cytotoxic
 activities, which were almost as potent as that of etoposide used
 as a pos. control. The activities were sensitive to the
 monosaccharides constituting the sugar moieties and their
 sequences, as well as to the structures of the aglycons.
 IT 164592-95-4 164592-97-6
 (antitumor structure-activity relationships of steroidal
 saponins)
 RN 164592-95-4 HCAPLUS
 CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,25R)-2-
 hydroxyspirostan-3-yl O-6-deoxy- α -L-mannopyranosyl-
 (1 \rightarrow 3)-O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[β -D-

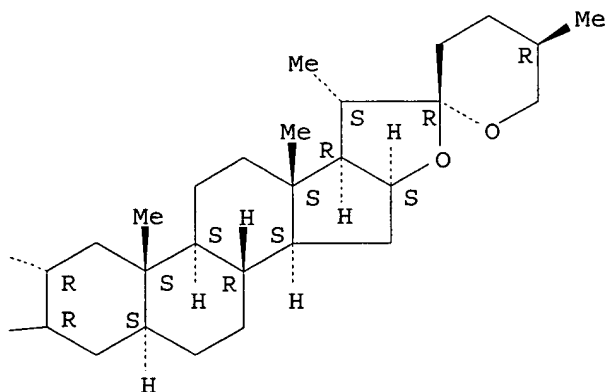
xylopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



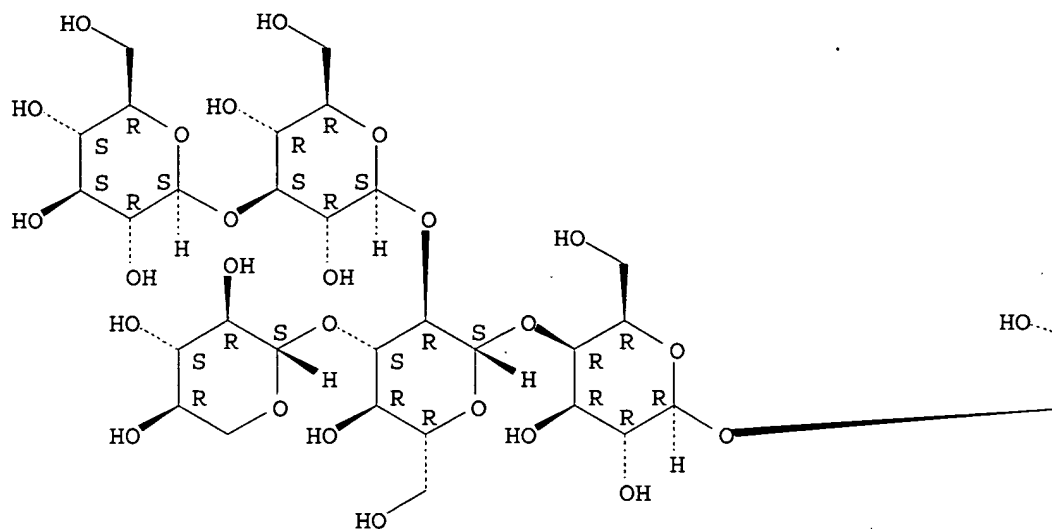
PAGE 1-B



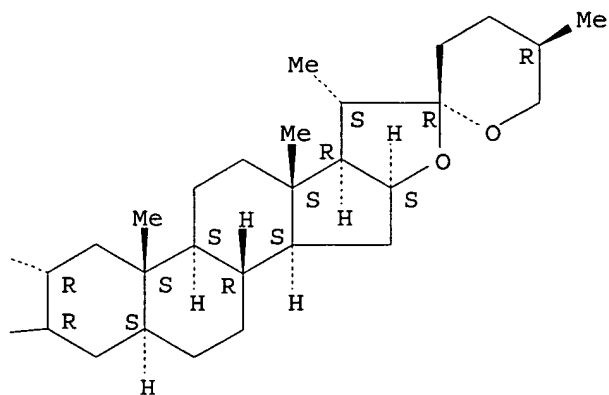
RN 164592-97-6 HCAPLUS
CN β-D-Galactopyranoside, (2α,3β,5α,25R)-2-
hydroxyspirostan-3-yl O-β-D-glucopyranosyl-(1→3)-O-
β-D-glucopyranosyl-(1→2)-O-[β-D-xylopyranosyl-
(1→3)]-O-β-D-glucopyranosyl-(1→4)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 1-3 (Pharmacology)

Section cross-reference(s): 32

IT 14144-06-0 19057-67-1 19083-00-2 28591-01-7 39491-37-7
 39491-41-3 50773-41-6 54522-52-0 55659-75-1 55916-51-3
 61478-50-0 70880-60-3 73069-20-2 81917-50-2 84774-05-0
 87425-35-2 90308-85-3 129744-09-8 132922-48-6 132922-50-0
 145594-56-5 145594-57-6 163136-07-0 163136-28-5
 164592-95-4 164592-97-6 164714-18-5
 164800-28-6 180161-85-7 184885-30-1 205191-12-4
 211036-50-9 211059-91-5 211059-92-6 219296-09-0
 227004-26-4 227004-32-2 227004-34-4 227004-36-6
 227004-39-9 256642-48-5 256650-98-3 391899-79-9

(antitumor structure-activity relationships of steroidal saponins)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 19 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:676989 HCAPLUS
DOCUMENT NUMBER: 135:238587
TITLE: Rapid and sensitive plate method for detection
of *Aspergillus fumigatus* by determining
arabinopyranoside substrate-cleaving activity
INVENTOR(S): Nelis, Hans J.; Bauters, Tiene G. M.
PATENT ASSIGNEE(S): Universiteit Gent, Belg.
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066790	A2	20010913	WO 2001-EP2727	2001 0312
WO 2001066790	A3	20020328		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1132481	A1	20010912	EP 2000-870041	2000 0310
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: EP 2000-870041 A 2000
0310
US 2000-194823P P 2000
0405

AB The present invention is based on the finding that micro-organisms
can be detected and identified on the basis of a specific enzyme
activity present in the micro-organism to be detected. Methods
and kits are described for the detection of micro-organisms,
preferably fungal species, using an arabinopyranoside substrate
for determining arabinopyranoside-cleaving activity. More particularly
methods and kits are described for the specific, sensitive and
rapid detection of *Aspergillus fumigatus* for diagnostic purposes.
A selective enriched growth medium for fungi is also provided.
IT 11024-24-1, Digitonin

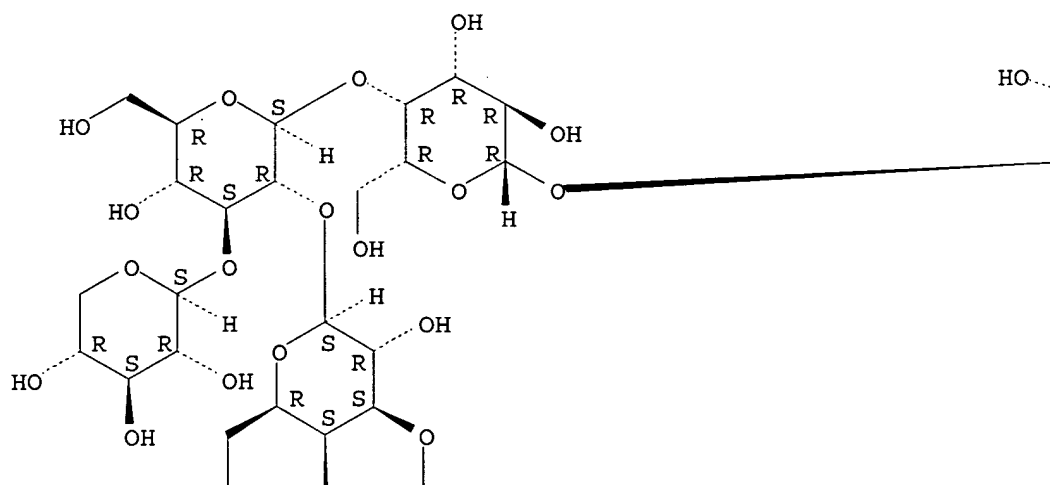
(membrane permeabilizer; rapid and sensitive plate method for detection of *Aspergillus fumigatus* by determining arabinopyranoside substrate-cleaving activity)

RN 11024-24-1 HCAPLUS

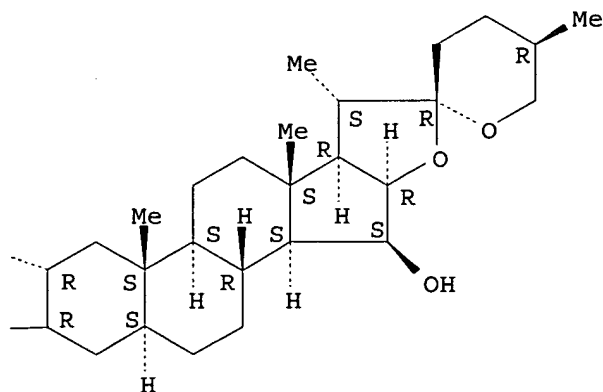
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxySpirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O- β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

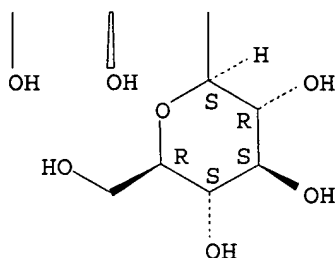
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM C12Q001-04
ICS C12Q001-34; C12Q001-44
CC 7-1 (Enzymes)
Section cross-reference(s): 9, 14
IT 67-66-3, Chloroform, biological studies 67-68-5, DMSO, biological studies 71-41-0, Amyl alcohol, biological studies 108-88-3, Toluene, biological studies 1397-89-3, Amphotericin B 7631-98-3, Sodium lauryl sarcosinate 11024-24-1, Digitonin
(membrane permeabilizer; rapid and sensitive plate method for detection of *Aspergillus fumigatus* by determining arabinopyranoside substrate-cleaving activity)

L28 ANSWER 20 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:549324 HCAPLUS

DOCUMENT NUMBER: 135:313155

TITLE: Cytotoxicity of digitoxin and related cardiac glycosides in human tumor cells

AUTHOR(S): Johansson, Senia; Lindholm, Petra; Gullbo, Joachim; Larsson, Rolf; Bohlin, Lars; Claeson, Per

CORPORATE SOURCE: Division of Pharmacognosy, Department of Medicinal Chemistry, Biomedical Centre, Uppsala University, Uppsala, 751 23, Swed.

SOURCE: Anti-Cancer Drugs (2001), 12(5), 475-483

CODEN: ANTDEV; ISSN: 0959-4973

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The saponin digitonin, the aglycon digitoxigenin and five cardiac glycosides were evaluated for cytotoxicity using primary cultures of tumor cells from patients and a human cell line panel (representing different cytotoxic drug-resistance patterns). Of these seven compds., proscillaridin A was the most potent (IC₅₀: 6.4-76 nM), followed by digitoxin, and then ouabain, digoxin, lanatoside C, digitoxigenin and digitonin. Correlation anal. of the log IC₅₀ values for the cell lines in the panel showed that compound cytotoxicity was only slightly influenced by resistance mechanisms that involved P-glycoprotein, topoisomerase II, multidrug resistance-associated protein and glutathione-mediated drug resistance. Digitoxin and digoxin expressed selective toxicity against solid tumor cells from patients, while proscillaridin A expressed no selective toxicity against either solid or hematol. tumor cells. The results revealed marked differences in cytotoxicity between the cardiac glycosides, both in potency and selectivity, and modes of action for cytotoxicity that differ from that of commonly used anticancer drugs.

IT 11024-24-1, Digitonin

(cytotoxicity of digitoxin and related cardiac glycosides in human tumor cells)

RN 11024-24-1 HCAPLUS

CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25

R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-

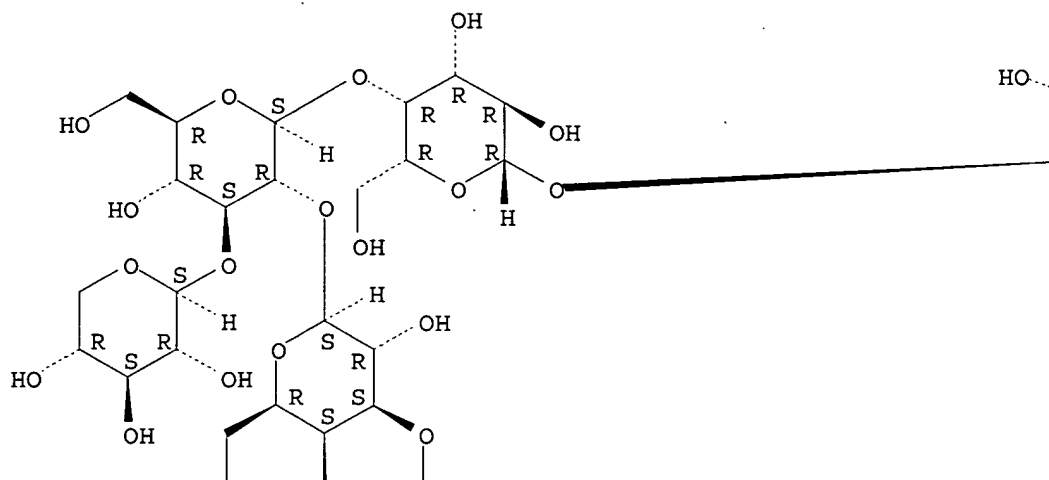
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-

xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-

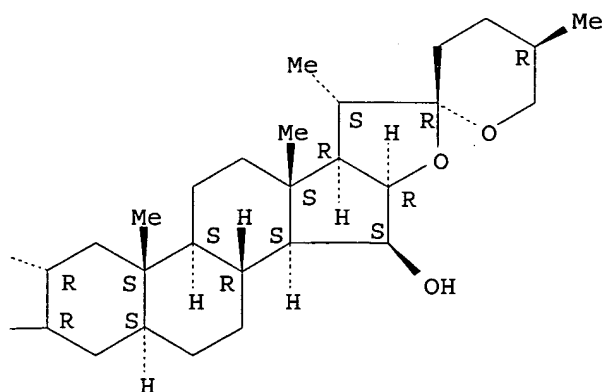
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

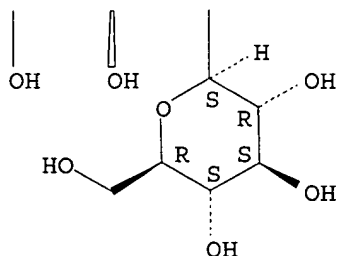
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 1-3 (Pharmacology)
 IT 71-63-6, Digitoxin 143-62-4, Digitoxigenin 466-06-8,
 Proscillaridin A 630-60-4, Ouabain 11024-24-1,
 Digitonin 17575-22-3, Lanatoside C 20830-75-5, Digoxin
 (cytotoxicity of digitoxin and related cardiac glycosides in
 human tumor cells)
 REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L28 ANSWER 21 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:519341 HCAPLUS
 DOCUMENT NUMBER: 135:91861
 TITLE: Method of preparing and using isoflavones
 INVENTOR(S): Empie, Mark; Gugger, Eric
 PATENT ASSIGNEE(S): Archer Daniels Midland Co., USA
 SOURCE: U.S., 8 pp., Cont.-in-part of U.S. 6,033,714.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 6
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6261565	B1	20010717	US 1998-162038	1998 0928
US 5702752	A	19971230	US 1996-614545	1996 0313
IL 130611	A1	20010430	IL 1997-130611	1997 0310
US 5792503	A	19980811	US 1997-868629	1997 0604
US 6033714	A	20000307	US 1998-35588	1998 0305
AU 9887879	A1	19990422	AU 1998-87879	1998 1001
AU 748832	B2	20020613		
ZA 9808962	A	19990913	ZA 1998-8962	1998

NZ 332131	A	20010629	NZ 1998-332131	1001
				1998
CA 2249501	C	20030114	CA 1998-2249501	1001
				1998
EP 906761	A2	19990407	EP 1998-308060	1001
				1998
EP 906761	A3	19990519		1002
EP 906761	B1	20040714		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,				
MC, PT, IE, SI, LT, LV, FI, RO				
JP 11221048	A2	19990817	JP 1998-296187	
				1998
				1002
MX 9808146	A	20001031	MX 1998-8146	
				1998
				1002
AT 270894	E	20040715	AT 1998-308060	
				1998
				1002
EP 1466609	A1	20041013	EP 2004-15530	
				1998
				1002
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,				
MC, PT, IE, FI, CY				
PT 906761	T	20041130	PT 1998-308060	
				1998
				1002
ES 2224337	T3	20050301	ES 1998-308060	
				1998
				1002
HK 1016879	A1	20050422	HK 1999-101886	
				1999
				0427
US 6391308	B1	20020521	US 2000-615239	
				2000
				0713
US 6391309	B1	20020521	US 2000-615240	
				2000
				0713
US 6391310	B1	20020521	US 2000-616205	
				2000
				0713
US 6395279	B1	20020528	US 2000-616150	
				2000
				0713
US 6399072	B1	20020604	US 2000-615152	
				2000
				0713
US 2002168433	A1	20021114	US 2002-136103	
				2002
				0501
US 2002187211	A1	20021212	US 2002-136158	
				2002
				0501
US 6509381	B2	20030121		
US 2003003168	A1	20030102	US 2002-137490	

				2002 0501
US 6900240	B2	20050531		
US 6518319	B1	20030211	US 2002-136150	
				2002 0501
US 2003064938	A1	20030403	US 2002-136079	
				2002 0501
PRIORITY APPLN. INFO.:			US 1996-614545	A3 1996 0313
			US 1997-868629	A2 1997 0604
			US 1997-60549P	P 1997 1002
			US 1998-35588	A2 1998 0305
			IL 1997-120409	A3 1997 0310
			US 1998-162038	A 1998 0928
			US 1998-162038P	P 1998 0928
			EP 1998-308060	A3 1998 1002
			US 2000-615152	A3 2000 0713
			US 2000-615239	A3 2000 0713
			US 2000-615240	A3 2000 0713
			US 2000-616150	A3 2000 0713
			US 2000-616205	A3 2000 0713

AB The invention provides for a refinement of phytochemicals in order to tailor the refined end product to particular human dietary needs. More particularly, a composition is prepared by extracting phytochemicals from plant matter. This composition is enriched preferably in two or more isoflavones, lignans, saponins, catechins and phenolic acids. Soy is the preferred source of these chemicals; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The composition is a dietary supplement for treatment of various cancers, pre-and-post-menstrual syndromes, and various other disorders.

IT 11024-24-1, Digitonin

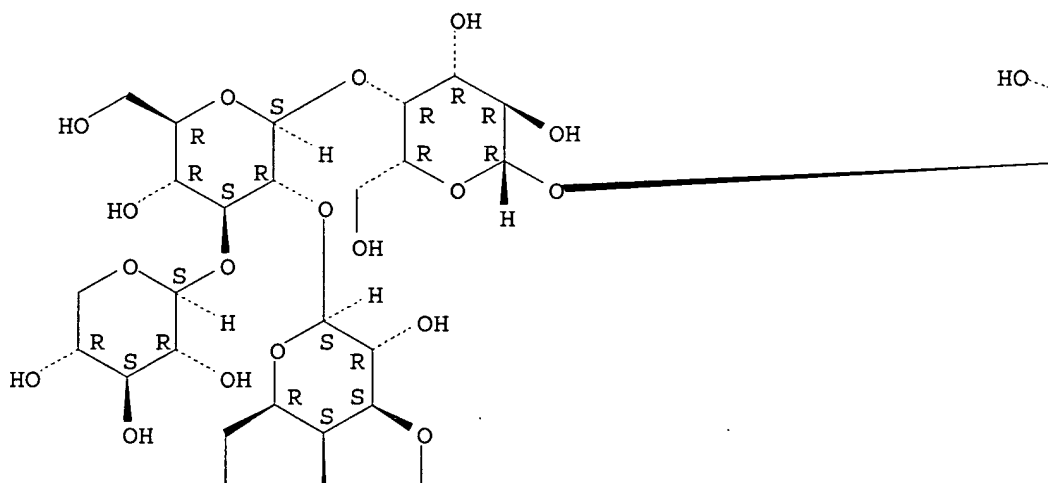
(isoflavone preparing method and use)

RN 11024-24-1 HCAPLUS

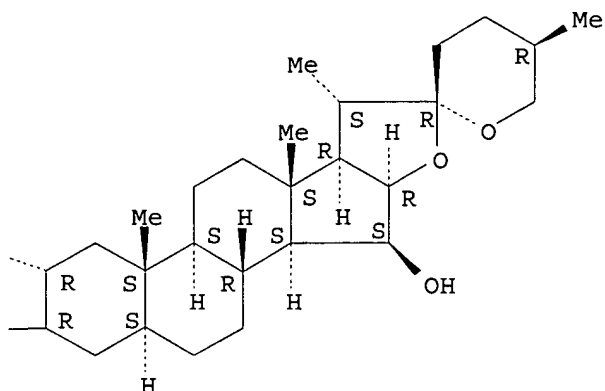
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

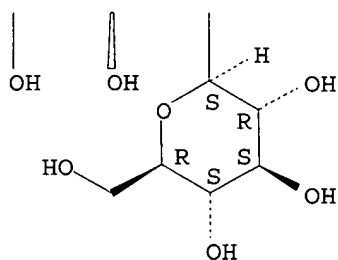
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A01N065-00

INCL 424195100

CC 17-4 (Food and Feed Chemistry)

Section cross-reference(s): 18, 63

IT 69-72-7, Salicylic acid, biological studies 121-34-6, Vanillic acid 149-91-7, Gallic acid, biological studies 156-38-7 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 446-72-0, Genistein 465-99-6, Hederagenin 485-72-3, Formononetin 486-66-8, Daidzein 487-36-5, Pinoresinol 490-46-0, Epicatechin 490-79-9 491-80-5, Biochanin A 500-38-9, Nordihydroguaiaretic acid 508-01-0, Soyasapogenol A 530-57-4, Syringic acid 530-59-6, Sinapic acid 548-29-8, Isolariciresinol 580-72-3, Matairesinol 595-14-2, Soyasapogenol C 595-15-3, Soyasapogenol B 599-07-5, Medicagenic acid 621-82-9, Cinnamic acid, biological studies 970-73-0, Gallocatechin 970-74-1, Epigallocatechin 1135-24-6, Ferulic acid 1393-03-9, Quillaja saponin 1405-86-3, Glycyrrhizin 2955-23-9, Olivil 6750-59-0, Soyasapogenol E **11024-24-1**, Digitonin 17406-45-0, Tomatine 25429-38-3, Coumaric acid 27003-73-2, Lariciresinol 29388-59-8, Secoisolariciresinol 29656-58-4, Hydroxybenzoic acid 40957-83-3, Glycitein 56283-67-1, Lucernic acid 65892-76-4, Soyasapogenol D 84161-89-7, Zanhic acid 104033-83-2, Soyasapogenol F

(isoflavone preparing method and use)

REFERENCE COUNT:

47

THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 22 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:447038 HCAPLUS

DOCUMENT NUMBER: 136:210132

TITLE: Cytotoxic activity of saponins from *Camassia leichtlinii* against human oral tumor cell lines

AUTHOR(S): Furuya, Shigenori; Takayama, Fumitoshi; Mimaki, Yoshihiro; Sashida, Yutaka; Satoh, Kazue; Sakagami, Hiroshi

CORPORATE SOURCE: Department of Dental Pharmacology, Meikai University School of Dentistry, Saitama, 350-0283, Japan

SOURCE: Anticancer Research (2001), 21(2A), 959-964
CODEN: ANTRD4; ISSN: 0250-7005

PUBLISHER: International Institute of Anticancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Five steroidal saponins from *C. leichtlinii* showed higher cytotoxicity against human oral squamous cell carcinoma cells HSC-2 than against normal human gingival fibroblasts HGF. The tumor specificity of the saponins varied considerably from sample to sample but was generally higher than that of tannins, flavonoids and prenylated compds. such as geranylgeraniol and vitamin K2. Agarose gel electrophoresis showed that the saponins failed to induce internucleosomal DNA fragmentation but produced large DNA fragments in HSC-2 cells, whereas two of the compds. induced internucleosomal DNA fragmentation in human promyelocytic leukemic HL-60 cells. In contrast to the cytotoxic activity of epigallocatechin gallate or gallic acid, that of the saponins was not significantly affected by metals (Co^{2+} , Cu^{2+} , Fe^{3+}) or by antioxidants (sodium ascorbate, N-acetyl-L-cysteine, catalase). Furthermore, the saponins did not produce radicals (detected by ESR spectroscopy) or oxidation potentials (measured by NO monitoring). These data suggest that an oxidation-mediated mechanism is not involved in the cytotoxicity of the steroidal saponins.

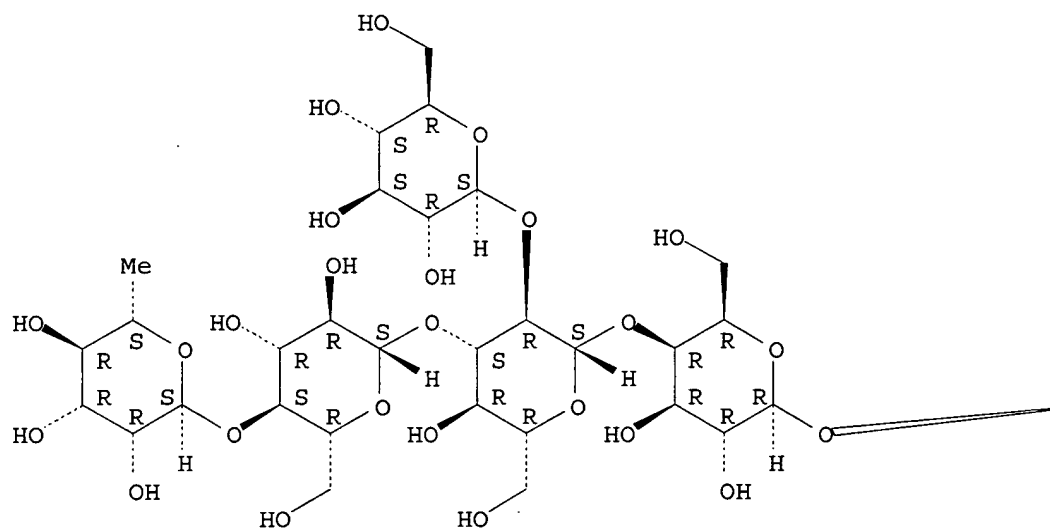
IT 112516-08-2 354575-42-1 402483-27-6
402483-28-7(cytotoxic activity of saponins from *Camassia leichtlinii* against human oral tumor cell lines)

RN 112516-08-2 HCAPLUS

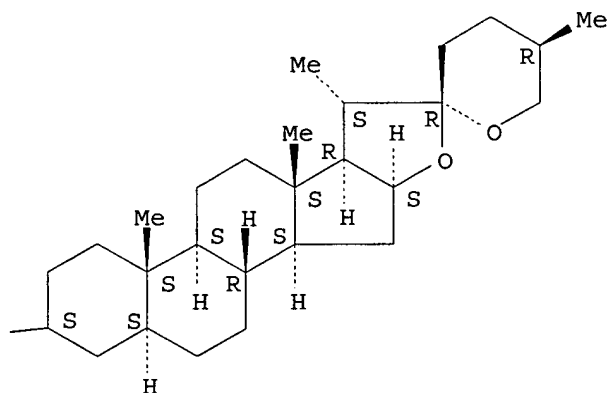
CN β -D-Galactopyranoside, (3 β ,5 α ,25R)-spirostan-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)-O- β -D-
glucopyranosyl-(1 \rightarrow 3)-O-[β -D-glucopyranosyl-
(1 \rightarrow 2)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



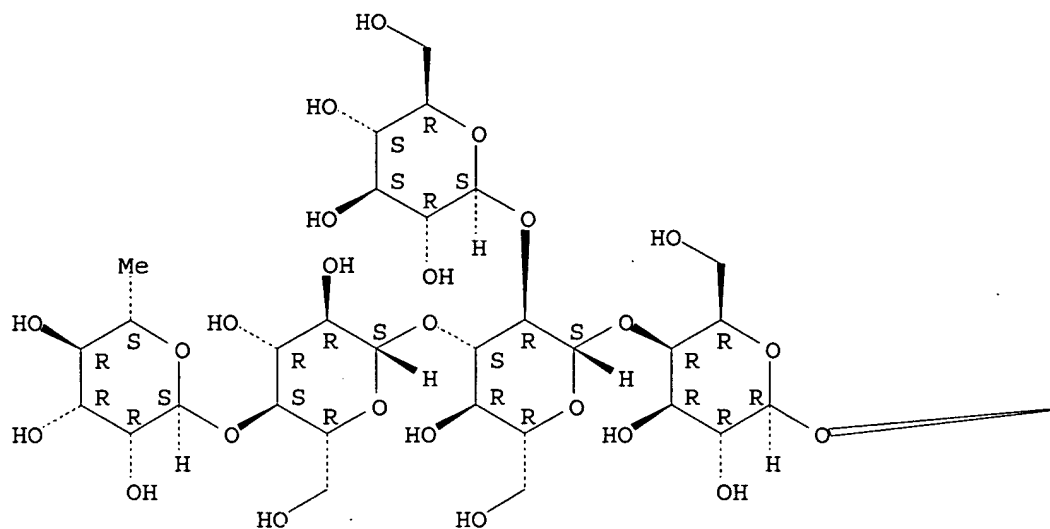
PAGE 1-B



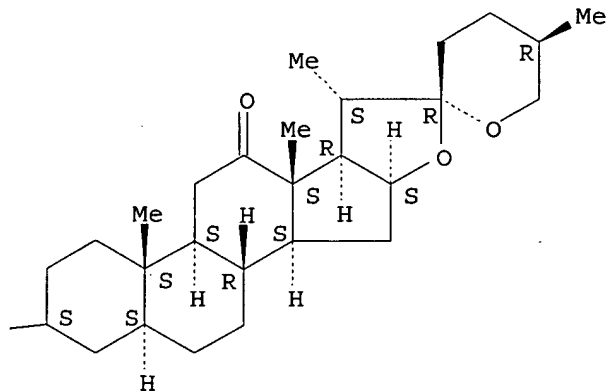
RN 354575-42-1 HCAPLUS
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Absolute stereochemistry. Rotation (-).

PAGE 1-A



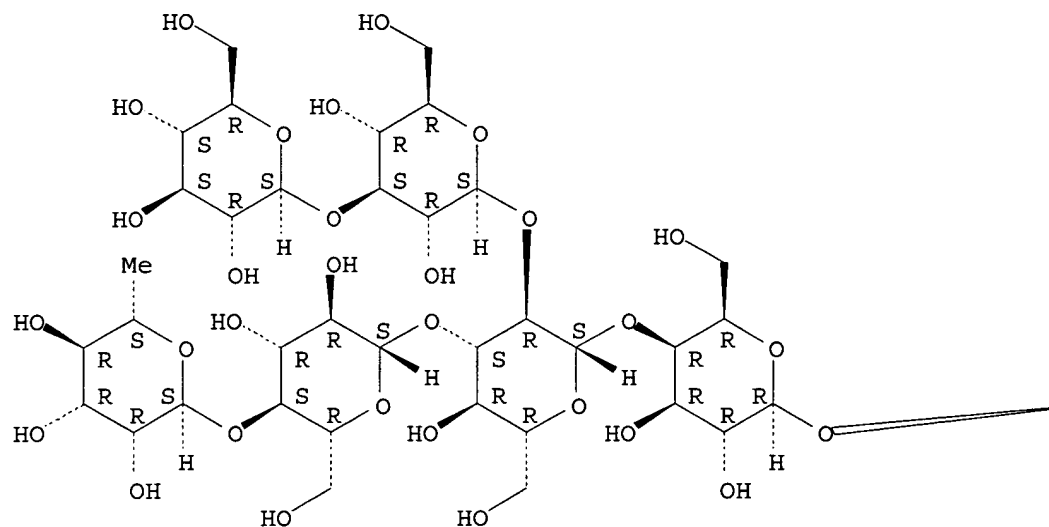
PAGE 1-B



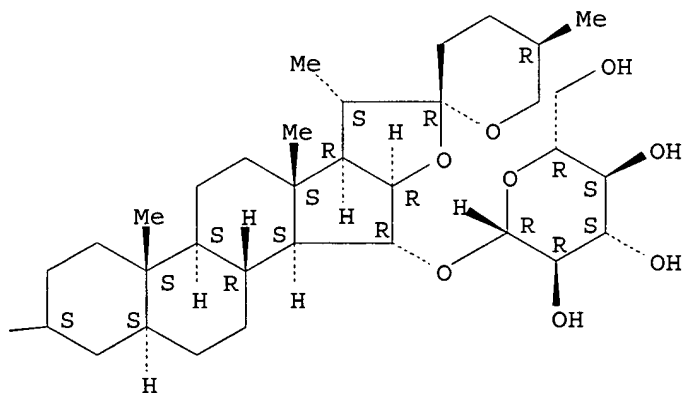
RN 402483-27-6 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,5 α ,15 α ,25R)-15-
 (β -D-glucopyranosyloxy)spirostan-3-yl O-6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 3)-
 O-[O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-glucopyranosyl-
 (1 \rightarrow 2)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

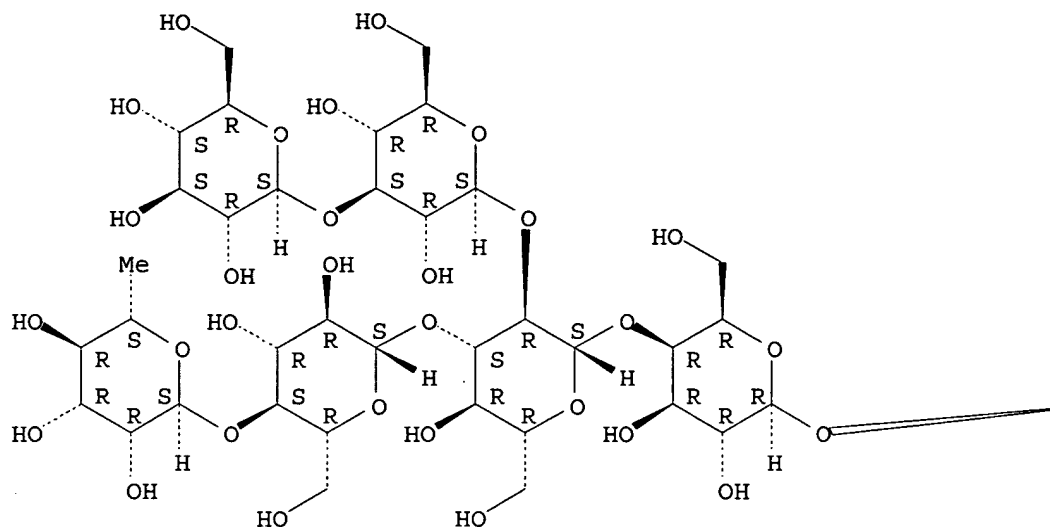


RN 402483-28-7 HCAPLUS

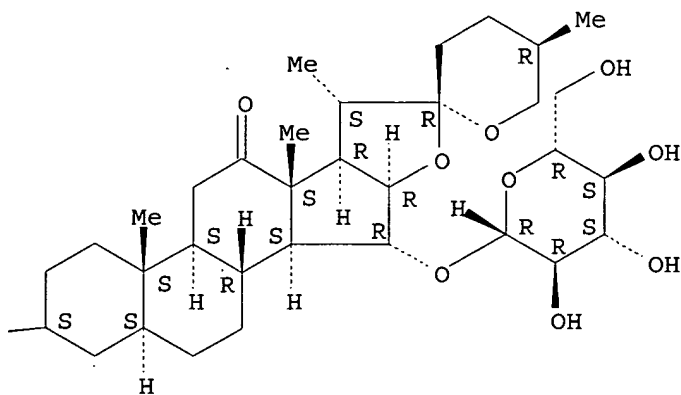
CN Spirostan-12-one, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 3)-O-[O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-glucopyranosyl-(1 \rightarrow 2)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-galactopyranosyl)oxy]-15-(β -D-glucopyranosyloxy)-, (3 β ,5 α ,15 α ,25R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 1-6 (Pharmacology)

Section cross-reference(s): 11

IT 112516-08-2 354575-42-1 402483-27-6

402483-28-7 402483-29-8

(cytotoxic activity of saponins from *Camassia leichtlinii*
against human oral tumor cell lines)REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 23 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:420943 HCAPLUS

DOCUMENT NUMBER: 136:205288

TITLE: Method of obtaining digitonin from *Digitalis*

seeds
 AUTHOR(S): Kemertelidze, E. P.; Sulakvelidze, Ts. P.
 CORPORATE SOURCE: I. G. Kutateladze Inst. Pharmacochimistry,
 Georgian Academy of Sciences, Tbilisi, Georgia
 SOURCE: Khimiya Prirodnykh Soedinenii (1992), (5),
 587-588
 CODEN: KPSUAR; ISSN: 0023-1150
 PUBLISHER: Izdatel'stvo Fan
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian

AB The ground Digitalis seeds were defatted with petroleum ether or dichloroethane and the glycosides were extracted with 80% alc. The extract was concentrated to 1/3 volume, and a small amount of a 1:2 mixture of carbon tetrachloride and isopropanol was added. The resulting mixture was left overnight at room temperature for digitonin to crystallize. The digitonin crystals were separated, recrystd. and dried. Approx. 50% of the amount of digitonin present in the raw material was isolated, i.e., 2-2.2%.

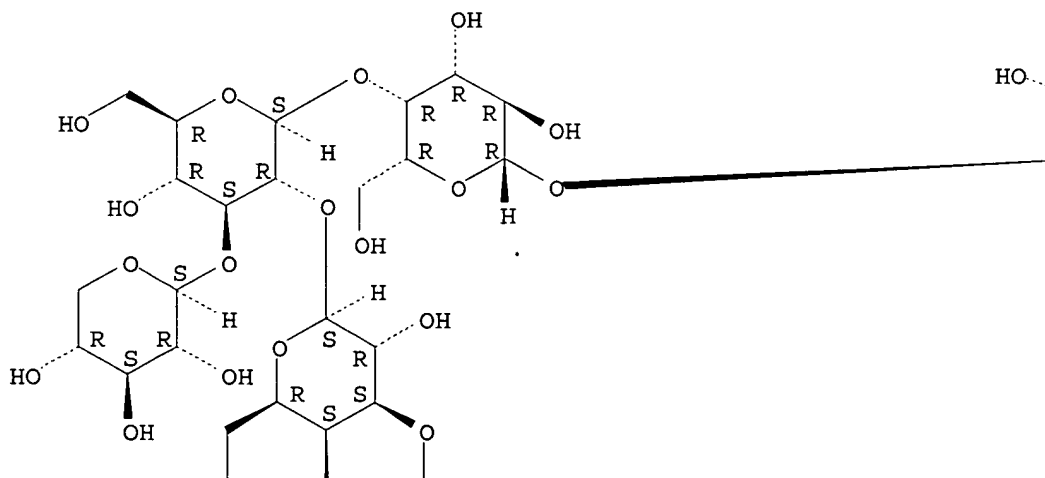
IT 11024-24-1P, Digitonin
 (isolation of digitonin from Digitalis seeds)

RN 11024-24-1 HCAPLUS

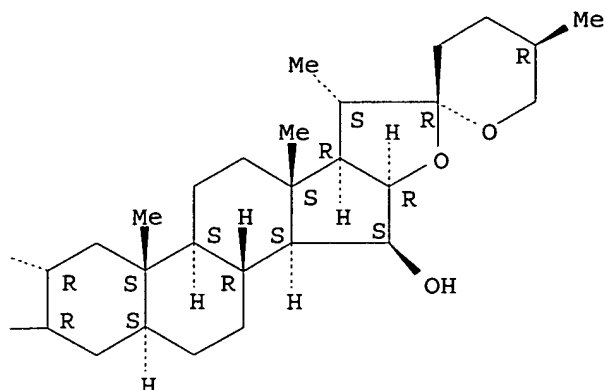
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

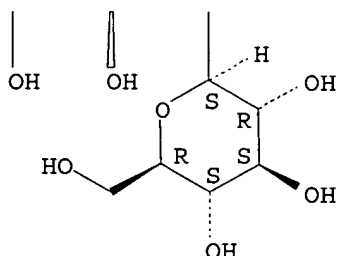
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 63-4 (Pharmaceuticals)
 Section cross-reference(s): 11
 IT 11024-24-1P, Digitonin
 (isolation of digitonin from Digitalis seeds)

L28 ANSWER 24 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:294522 HCAPLUS
 DOCUMENT NUMBER: 135:220768
 TITLE: Digitonin enhances the anti-tumor effect of
 cisplatin against methylcholanthrene-induced
 rat sarcoma cells in vitro
 AUTHOR(S): Tanaka, Toshiki; Kaneda, Yoshikazu; Li,
 Tao-Sheng; Matsuoka, Takahisa; Zempo, Nobuya;
 Esato, Kensuke
 CORPORATE SOURCE: Department of Surgery I, Yamaguchi University
 School of Medicine, Yamaguchi, 755-8505, Japan
 SOURCE: Anticancer Research (2001), 21(1A), 313-315
 CODEN: ANTRD4; ISSN: 0250-7005
 PUBLISHER: International Institute of Anticancer Research
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Background: This study was designed to evaluate cellular uptake
 and cytotoxicity of cisplatin in methylcholanthrene (MCA)-induced
 rat sarcoma cells when used in combination with a detergent,
 digitonin. Materials and Methods: In the cellular intake study,
 after MCA sarcoma cells (107) were treated with cisplatin alone
 (50 µg/mL) and with cisplatin (50 µg/mL) in combination with
 digitonin at 20 µM and 50 µM, the cells were washed twice

with PBS and the platinum levels were measured by flameless atomic spectrometry. For the anti-tumor effect MCA sarcoma cells (103) were seeded in cell culture dishes and loaded for 10 min with PBS, digitonin (5 μ M), cisplatin (5 μ g/mL) or a combination of cisplatin (5 μ g/mL) and digitonin (5 μ M). The cells were then washed and incubated for 72 h. Bromodeoxyuridine uptake was measured with an ELISA system for determining viable cells counts. Results: Cell platinum levels were significantly elevated in proportion to the increase of digitonin ($p < 0.0001$). The number of viable cells was significantly decreased with, the combined cisplatin (5 μ g/mL) - digitonin (5 μ M) treatment ($p < 0.0001$). Conclusion: Digitonin enhances the antitumor effect of cisplatin against methylcholanthrene-induced rat sarcoma in vitro.

IT 11024-24-1, Digitonin

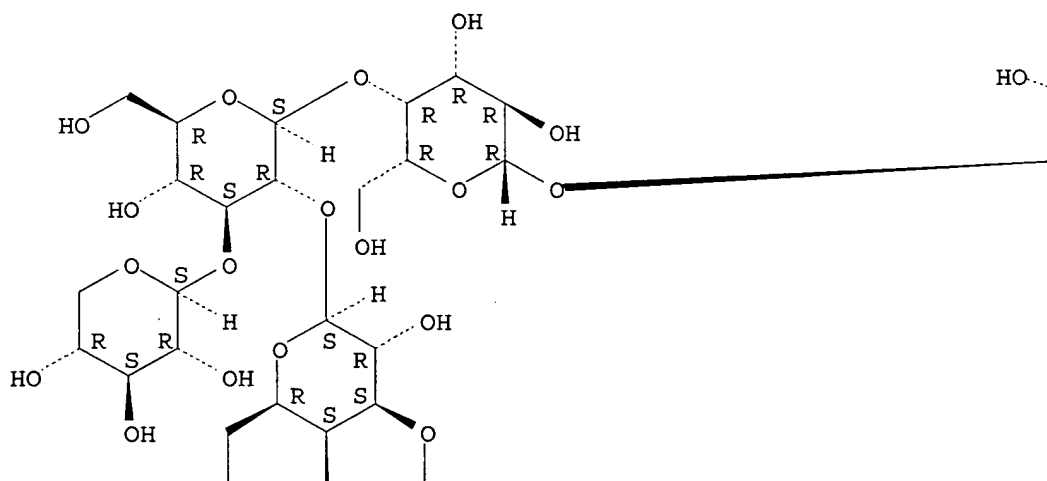
(digitonin enhances the anti-tumor effect of cisplatin against methylcholanthrene-induced rat sarcoma cells in vitro)

RN 11024-24-1 HCAPLUS

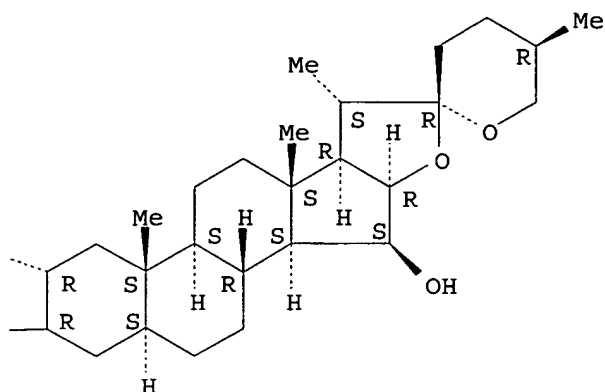
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R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

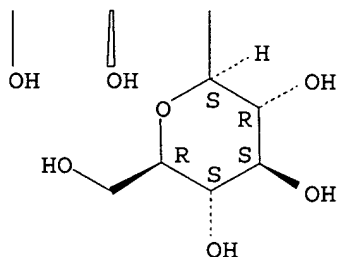
PAGE 1-A



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PAGE 2-A



CC 1-6 (Pharmacology)

IT 11024-24-1, Digitonin 15663-27-1, cisplatin

(digitonin enhances the anti-tumor effect of cisplatin against methylcholanthrene-induced rat sarcoma cells in vitro)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 25 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:115391 HCAPLUS

DOCUMENT NUMBER: 134:159836

TITLE: Spectrophotometric measurement in color-based biochemical and immunological assays

INVENTOR(S): Evelegh, Michael J.

PATENT ASSIGNEE(S): IMI International Medical Innovations Inc., Can.

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001011359	A2	20010215	WO 2000-CA918	2000

USHA SHRESTHA EIC 1600 REM 1A64

0804

WO 2001011359 A3 20011206
WO 2001011359 C2 20020829

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE,
SN, TD, TG

BR 2000013096 A 20020507 BR 2000-13096

2000
0804

EP 1218748 A2 20020703 EP 2000-954181

2000
0804

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
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JP 2003506715 T2 20030218 JP 2001-515964

2000
0804

AU 781034 B2 20050428 AU 2000-66734

2000
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RU 2271539 C2 20060310 RU 2002-103517

2000
0804

US 2005003468 A1 20050106 US 2004-887737

2004
0709

PRIORITY APPLN. INFO.:

CA 1999-2279793 A

1999
0806

CA 2000-2296163 A

2000
0117

CA 2000-2306315 A

2000
0420

WO 2000-CA918 W

2000
0804

US 2001-830708 B1

2001
0430

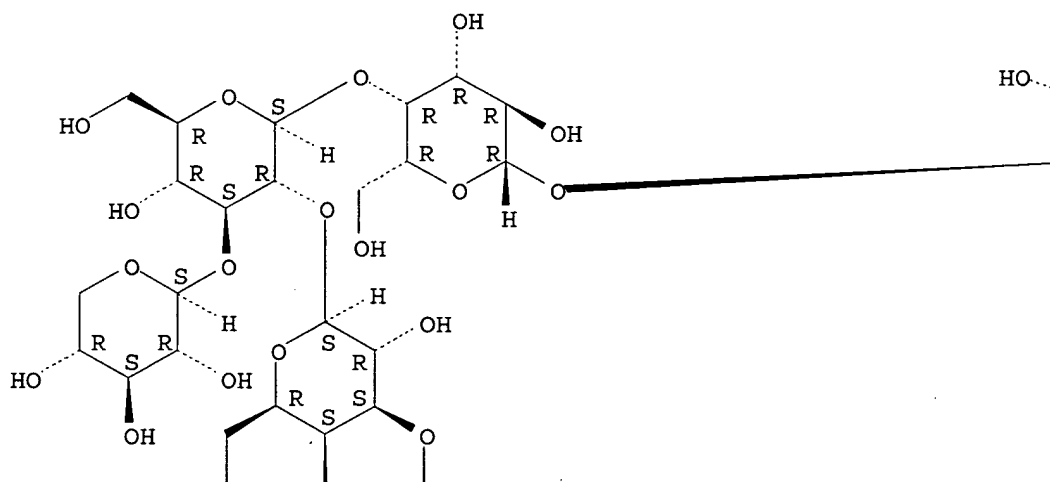
AB A process is provided for analyzing a specimen of biol. material in any of a number of biochem. or immunol. tests for an analyte which involves subjecting the specimen to treatment which develops a color correlating to the amount of analyte in the specimen. According to the invention at least one defined color characteristic selected from hue angle, chroma, saturation and lightness of the developed color is measured and the results of

that measurement analyzed to determine the presence or concentration of the analyte in the specimen. Particular applications are to the detection of cancerous or pre-cancerous abnormalities from the anal. of lung mucus, throat mucus, cervical mucus or seminal fluid. A reflection spectrometer for measuring cholesterol in skin is described.

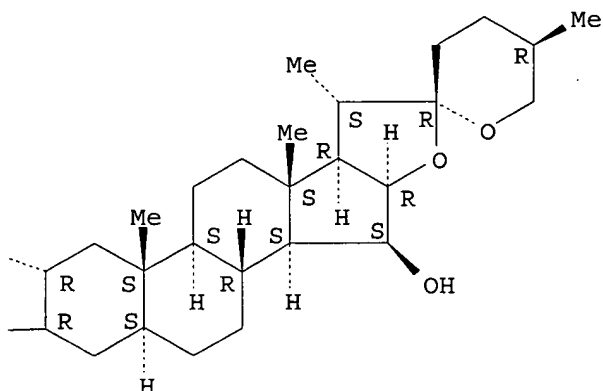
IT 11024-24-1, Digitonin
 (as cholesterol binding agent; spectrophotometric measurement
 in color-based biochem. and immunol. assays)
 RN 11024-24-1 HCAPLUS
 CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

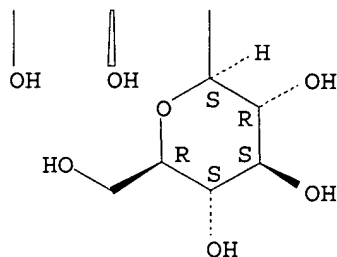
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM G01N033-50
 CC 9-1 (Biochemical Methods)
 Section cross-reference(s): 15
 IT **11024-24-1**, Digitonin
 (as cholesterol binding agent; spectrophotometric measurement
 in color-based biochem. and immunol. assays)

L28 ANSWER 26 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:756545 HCAPLUS

DOCUMENT NUMBER: 133:340220

TITLE: Adjuvant comprising a saponin and an
 immunostimulatory oligonucleotide for
 manufacture of vaccines

INVENTOR(S): Friede, Martin; Garcon, Nathalie; Hermand,
 Philippe

PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000062800	A2	20001026	WO 2000-EP2920	2000

0404

WO 2000062800 A3 20010111
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO,
NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN,
TD, TG

US 6558670 B1 20030506 US 1999-301829 1999
0429

CA 2370697 AA 20001026 CA 2000-2370697 2000
0404

AU 2000041149 A5 20001102 AU 2000-41149 2000
0404

AU 764969 B2 20030904
BR 2000010612 A 20020213 BR 2000-10612 2000
0404

TR 200103018 T2 20020221 TR 2001-3018 2000
0404

EP 1187629 A2 20020320 EP 2000-920647 2000
0404

EP 1187629 B1 20040922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO
JP 2002542203 T2 20021210 JP 2000-611936 2000
0404

AT 276758 E 20041015 AT 2000-920647 2000
0404

PT 1187629 T 20050228 PT 2000-920647 2000
0404

ES 2228497 T3 20050416 ES 2000-920647 2000
0404

EP 1541170 A1 20050615 EP 2004-76239 2000
0404

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, FI, CY
CN 1739800 A 20060301 CN 2005-10109698 2000
0404

TW 232753 B1 20050521 TW 2000-89107209 2000
0418

US 6544518 B1 20030408 US 2000-690921 2000
1018

NO 2001005073	A	20011122	NO 2001-5073	2001 1018
ZA 2001008619	A	20020912	ZA 2001-8619	2001 1019
HK 1044484	A1	20050729	HK 2002-106189	2002 0822
US 2003161834	A1	20030828	US 2003-379164	2003 0303
PRIORITY APPLN. INFO.:			GB 1999-8885	A 1999 0419
			US 1999-301829	A 1999 0429
			CN 2000-808836	A3 2000 0404
			EP 2000-920647	A3 2000 0404
			WO 2000-EP2920	W 2000 0404
			US 2000-690921	A3 2000 1018

AB The present invention relates to adjuvant compns. which are suitable to be used in vaccines. In particular, the adjuvant compns. of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.

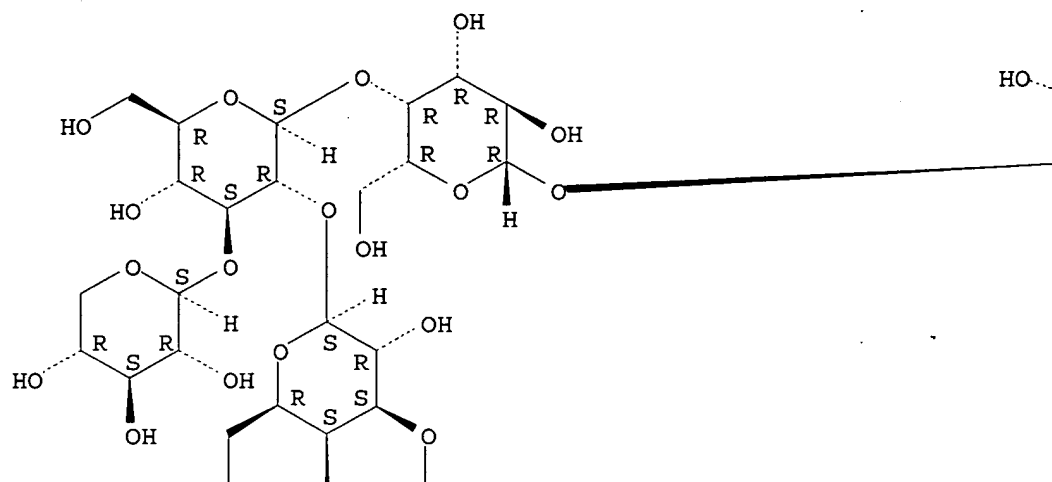
IT 11024-24-1, Digitonin
(adjuvant comprising a saponin and an immunostimulatory oligonucleotide for manufacture of vaccines)

RN 11024-24-1 HCAPLUS

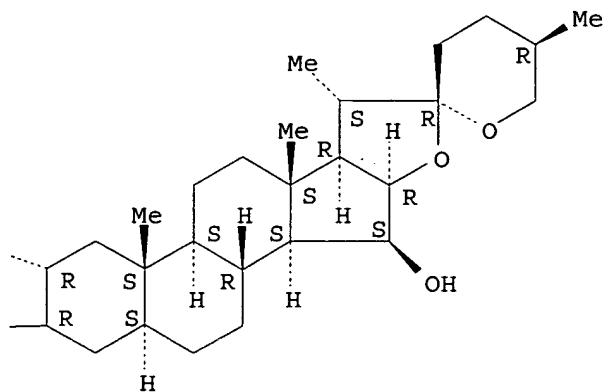
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

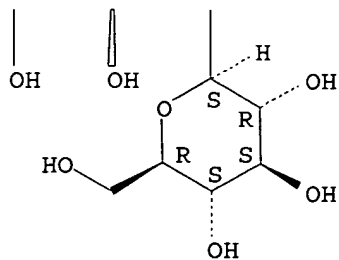
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K039-00
 CC 63-6 (Pharmaceuticals)
 IT 11024-24-1, Digitonin 11072-93-8, β -Escin
 66594-14-7, Quil A 141256-04-4, QS21 208933-54-4, QS7
 218138-45-5, QS17
 (adjuvant comprising a saponin and an immunostimulatory
 oligonucleotide for manufacture of vaccines)

L28 ANSWER 27 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:712989 HCAPLUS
 DOCUMENT NUMBER: 133:276329
 TITLE: Furcreastatin, its antitumor compositions, and
 its manufacture from Furcraea foetida leaf
 INVENTOR(S): Umesawa, Kazuo; Kondo, Shinichi; Ikeda, Yoko;
 Segawa, Kaoru; Koyano, Takashi; Itahashi,
 Masaki
 PATENT ASSIGNEE(S): Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000281698	A2	20001010	JP 1999-81379	1999 0325
PRIORITY APPLN. INFO.:			JP 1999-81379	1999 0325

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
 *

AB The compns. contain furcreastatin (I) extracted from F. foetida with
 H2O-containing organic solvent, as active ingredient. I showed specific
 cytotoxicity to 10(1)-mp53 cell with IC50 of 4 μ g/mL and
 antitumor activity against HSC-3 cell with IC50 of 3 μ g/mL.

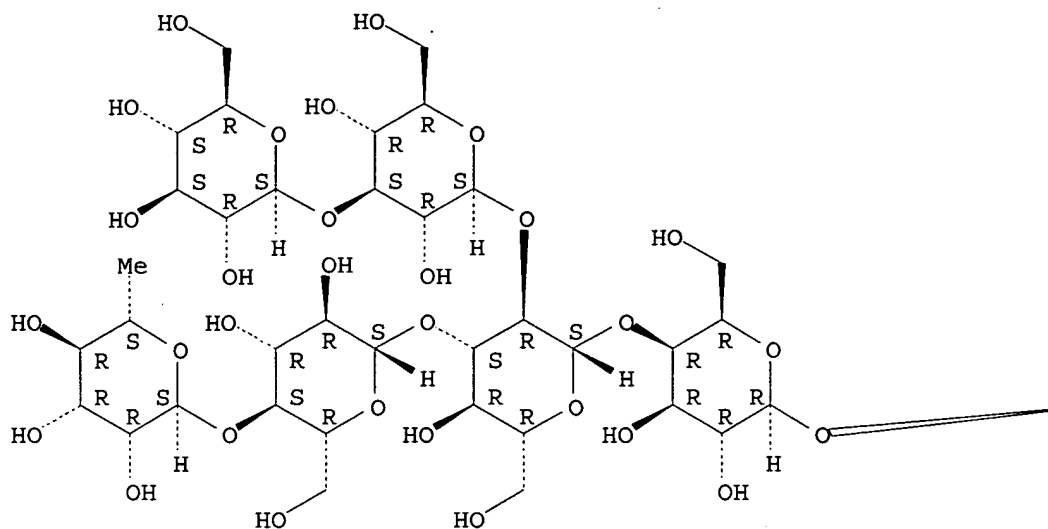
IT 262378-87-0P, Furcreastatin
 (antitumor compns. containing furcreastatin extracted from Furcraea
 foetida)

RN 262378-87-0 HCAPLUS

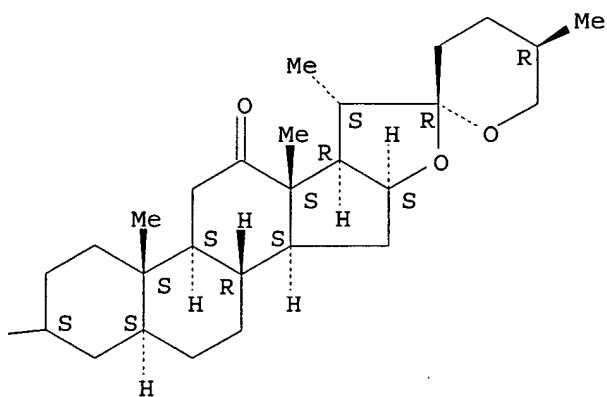
CN Spirostan-12-one, 3-[(O-6-deoxy- α -L-mannopyranosyl-
 (1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 3)-O-[O- β -D-
 glucopyranosyl-(1 \rightarrow 3)- β -D-glucopyranosyl-(1 \rightarrow 2)]-
 O- β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-
 galactopyranosyl)oxy]-, (3 β ,5 α ,25R)-(9CI) (CA INDEX
 NAME)

Absolute stereochemistry. Rotation (-).

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PAGE 1-B



IC ICM C07J017-00
 ICS A61P035-00; A61K035-78
 CC 1-6 (Pharmacology)
 Section cross-reference(s): 63
 IT 262378-87-0P, Furcreastatin
 (antitumor comps. containing furcreastatin extracted from *Furcraea foetida*)

L28 ANSWER 28 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:475554 HCAPLUS

DOCUMENT NUMBER: 133:103722

TITLE: Novel agents and methods for treatment and diagnosis of ocular disorders

INVENTOR(S): Thiel, Michael Alexander; Zola, Heddy; Coster, Douglas John; Williams, Keryn Anne

USHA SHRESTHA EIC 1600 REM 1A64

PATENT ASSIGNEE(S): The Flinders University of South Australia,
Australia
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040262	A1	20000713	WO 1999-AU1163	1999 1224
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2348488	AA	20000713	CA 1999-2348488	1999 1224
EP 1140170	A1	20011010	EP 1999-966798	1999 1224
EP 1140170	B1	20060621		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY				
JP 2002534394	T2	20021015	JP 2000-592017	1999 1224
NZ 511219	A	20030530	NZ 1999-511219	1999 1224
AU 775778	B2	20040812	AU 2000-22707	1999 1224
AT 330631	E	20060715	AT 1999-966798	1999 1224
ZA 2001003884	A	20020814	ZA 2001-3884	2001 0514
US 6773916	B1	20040810	US 2001-857399	2001 0919
PRIORITY APPLN. INFO.:			AU 1999-8033	A 1999 0105
			AU 1999-3305	A 1999 1007

WO 1999-AU1163

W

1999

1224

AB A method of treating ocular disorders is disclosed, comprising administering to patients an effective amount of a sub-Ig antigen-binding mol. (such as single-chain Fv fragments) that interact with target antigens associated with the disorder. Target antigens include cytokine receptors, adhesion mols., CD antigens, herpes virus antigens, etc. The Ig fragments can also be treated with agents such as DMSO, capric acid, digitonin, detergents, benzalkonium chloride, PEG, etc. in order to enhance the ocular penetration of the Ig fragments. The invention is also directed to compns. comprising this sub-Ig antigen-binding mol. and to a method of diagnosing an ocular condition using such mol. Ocular disorders suitable for treatment include corneal graft rejection, uveitis, conjunctivitis, keratitis, ocular tumors, maculopathies, and ocular penthogoid.

IT 11024-24-1, Digitonin

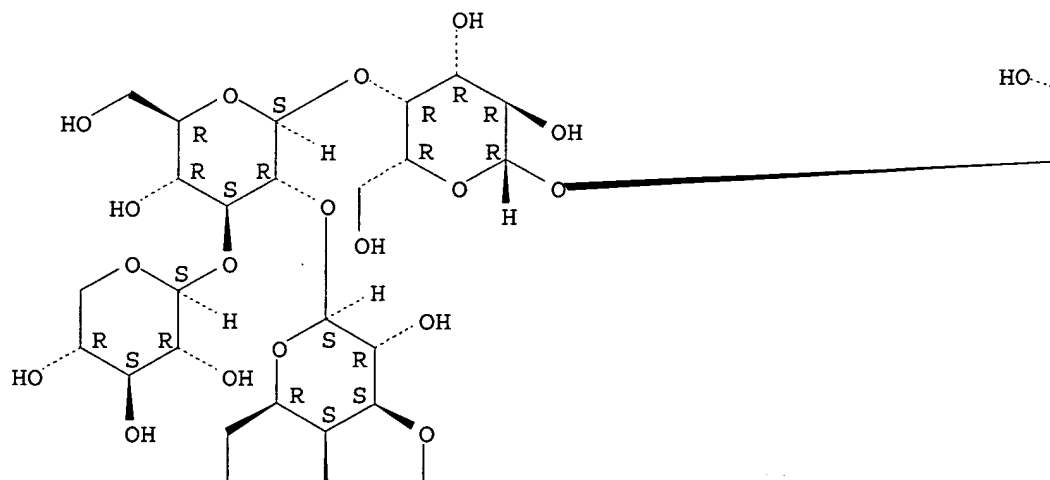
(novel agents and methods for treatment and diagnosis of ocular disorders in relation to herpes virus antigens in relation to)

RN 11024-24-1 HCAPLUS

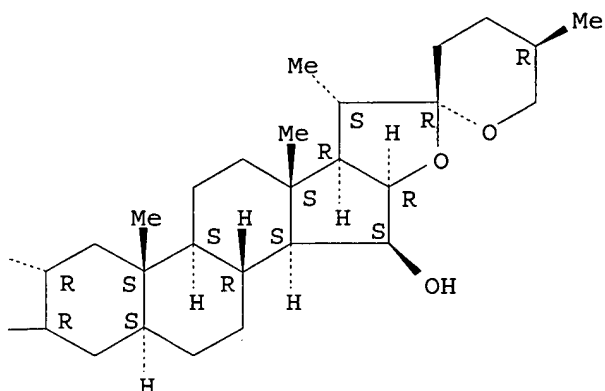
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxySpirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

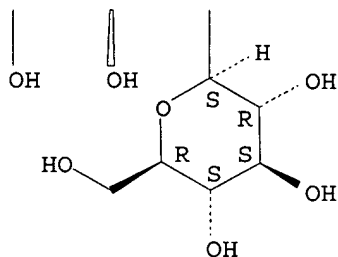
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K039-395
 ICS A61P027-02
 CC 15-3 (Immunochemistry)
 IT 67-68-5, DMSO, biological studies 334-48-5, Capric acid
 11024-24-1, Digitonin 25322-68-3, Polyethylene glycol
 39156-67-7, Dihydrocytochalasin B
 (novel agents and methods for treatment and diagnosis of ocular
 disorders in relation to herpes virus antigens in relation to)
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L28 ANSWER 29 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:74784 HCAPLUS
 DOCUMENT NUMBER: 132:83640
 TITLE: Percutaneous oxidant compound compositions
 INVENTOR(S): Hu, Youpu
 PATENT ASSIGNEE(S): Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
 41 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1177480

A

19980401

CN 1996-109837

1996

0920

CN 1108155

B

20030514

CN 1996-109837

PRIORITY APPLN. INFO.:

1996

0920

AB Percutaneous oxicam compound compns. [e.g. ointments] comprise analgesic and antiinflammatory oxicam compds. 0.1-30, absorption promoters 2-30, excipients 17-25, and water 40-80%. The oxicam compds. are selected from piroxicam, isoxicam, sudoxicam, cinnoxamic, tenoxicam and lomoxicam; and the absorption promoters from glycyrrhizic acid, oleanolic acid, malol, trans-cinnamic acid, β -myrcene, trans-cinnamaldehyde, cineole, terpeneol, betulin, epicatechin, lauryl alc., ergosterol, terphenyl, pinene, limonene, digitonin, Et myristate and Tween-80. The excipient is composed of glycol 90.9%, and Na CM-cellulose 9.1%. The compns. are prepared by dissolving oxicam compds. and absorption promoters in glycol; dissolving Na CM-cellulose in water, and mixing.

IT 11024-24-1, Digitonin

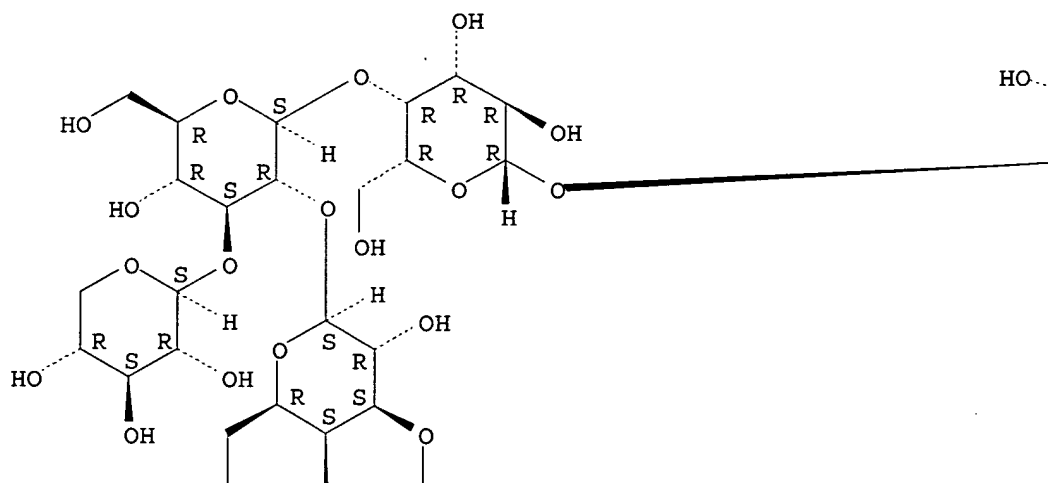
(percutaneous oxicam compound compns.)

RN 11024-24-1 HCAPLUS

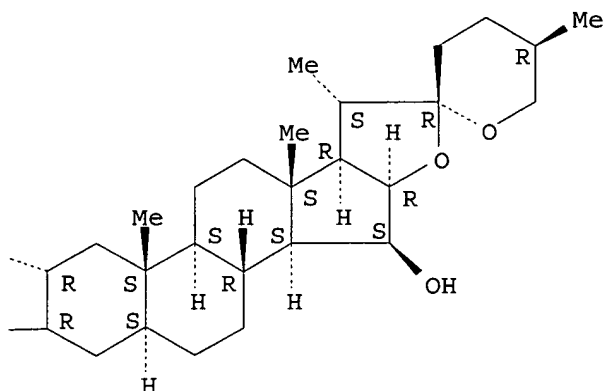
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

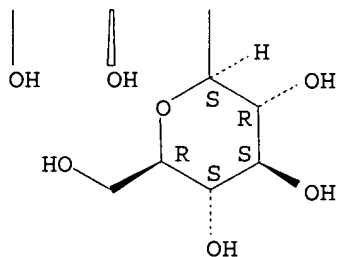
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K031-54
ICS A61K009-00; A61K047-06
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT 57-87-4, Ergosterol 77-52-1, Malol 107-21-1, Ethylene Glycol, biological studies 112-53-8, Lauryl alcohol 123-35-3, β -Myrcene 124-06-1, Ethyl myristate 138-86-3, Limonene 140-10-3, Trans-Cinnamic acid, biological studies 470-82-6, Cineole 473-98-3, Betulin 490-46-0, Epicatechin 508-02-1, Oleanolic acid 1330-16-1, Pinene 1405-86-3, Glycyrrhizic acid 8000-41-7, Terpineol 9004-32-4 9005-65-6, Tween-80 11024-24-1, Digitonin 14371-10-9, Trans-Cinnamaldehyde 26140-60-3, Terphenyl 34042-85-8, Sudoxicam 34552-84-6, Isoxicam 36322-90-4, Piroxicam 59804-37-4, Tenoxicam 70374-27-5, Lomoxicam 87234-24-0, Cinnoxicam (percutaneous oxycam compound compns.)

L28 ANSWER 30 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:672604 HCAPLUS
DOCUMENT NUMBER: 131:314175
TITLE: Polymer particle vaccine delivery system for Helicobacter pylori surface antigen
INVENTOR(S): Carlsson, Hans; Larsson, Anette; Soderlind, Erik
PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952550	A1	19991021	WO 1999-SE582	1999 0409
<p>W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM</p> <p>RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG</p>				
AU 9940662	A1	19991101	AU 1999-40662	1999 0409
AU 765118	B2	20030911		
EP 1071457	A1	20010131	EP 1999-924075	1999 0409
<p>R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO</p>				
JP 2002516822	T2	20020611	JP 2000-543160	1999 0409
US 6838089	B1	20050104	US 1999-308435	1999 0519
PRIORITY APPLN. INFO.:			SE 1998-1288	A 1998 0414
			WO 1999-SE582	W 1999 0409

AB The present invention concerns polymer particle vaccine delivery systems in which a water insol. protein antigen, e.g. a lipidated HpaA protein, is incorporated with particles comprising a polymer matrix. The present invention also concerns a method for incorporating such a water insol. protein antigen with a polymer matrix in order to produce a polymer particle vaccine delivery system. In addition, the invention also provides a vaccine composition comprising the polymer particle delivery system. The vaccine can be used to treat and/or reduce the risk of for example Helicobacter infection.

IT 11024-24-1, Digitonin
(polymer particle vaccine delivery system for Helicobacter pylori surface antigen)

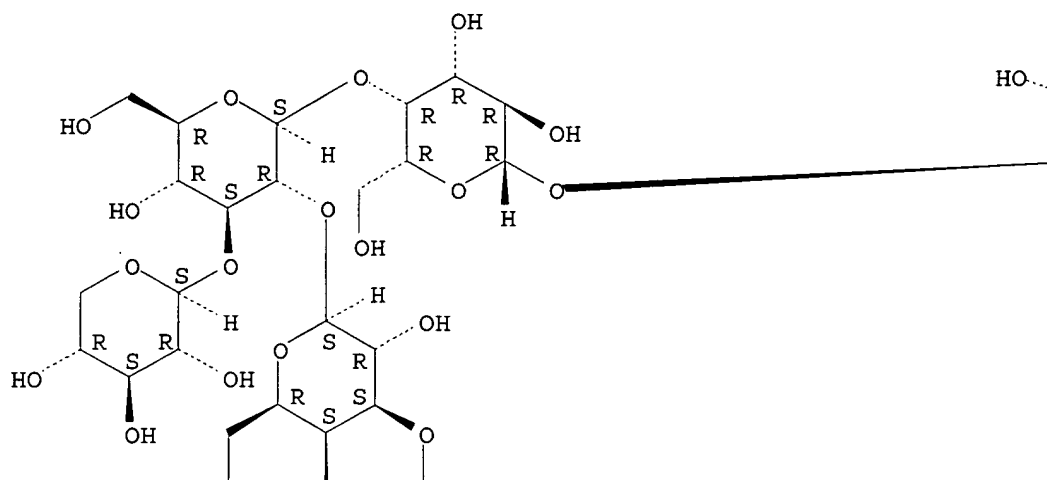
RN 11024-24-1 HCAPLUS

CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-

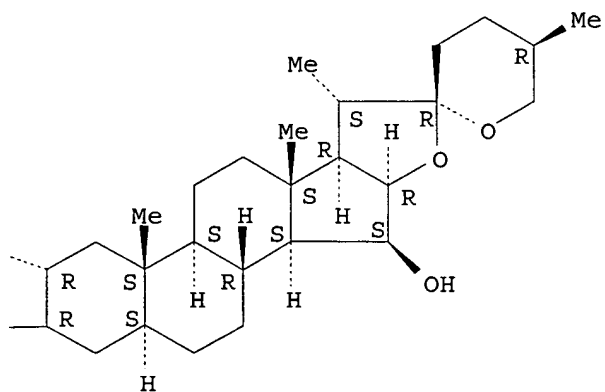
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

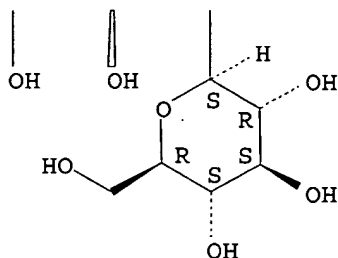
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K039-39
ICS A61K009-16
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 15
IT 57-50-1D, Sucrose, esters 57-88-5, Cholesterol, biological studies 69-79-4D, Maltose, alkyl derivs. 81-25-4D, Cholic acid, salts 83-44-3D, Deoxycholic acid, derivs. 137-16-6 144-62-7D, Oxalic acid, polymers 9002-86-2D, Polyvinylchloride, derivs. 9002-89-5, Polyvinylalcohol 9003-01-4D, Polyacrylic acid, derivs. 9003-39-8, Polyvinylpyrrolidone 9003-53-6D, Polystyrene, derivs. 9004-35-7D, Cellulose acetate, acyl-substituted derivs. 11024-24-1, Digitonin 12441-09-7D, Sorbitan, fatty acid esters 24937-78-8, Ethylene-vinyl acetate copolymer 24980-41-4, Polycaprolactone 24981-14-4D, Polyvinyl fluoride, derivs. 25232-42-2, Polyvinylimidazole 25248-42-4, Polycaprolactone 25322-68-3 25322-68-3D, derivs. 25618-55-7, Polyglycerol 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 26780-50-7, Poly(DL-lactide-co-glycolide) 27925-02-6 27941-05-5 34346-01-5, Poly(lactic acid-glycolic acid) 50646-93-0, Emulphogen 52352-27-9, Polyhydroxybutyric acid 70524-20-8 80181-31-3 106392-12-5, Ethylene oxide-propyleneoxide block copolymer 112143-11-0, Ethylene oxide-lactic acid block copolymer 128171-16-4, Hydroxybutyric acid-hydroxyvaleric acid copolymer 192932-24-4
(polymer particle vaccine delivery system for Helicobacter pylori surface antigen)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 31 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:468719 HCAPLUS
DOCUMENT NUMBER: 131:113403
TITLE: Immunoassay for detection of very low density lipoprotein and antibodies useful therefor
INVENTOR(S): Kundu, Sumar K.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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USHA SHRESTHA EIC 1600 REM 1A64

PRIORITY APPLN. INFO.:

AB The present invention provides a method for directly measuring apolipoprotein B-100 (apoB) or cholesterol associated with very low d. lipoprotein (VLDL) in a fluid sample. In one embodiment the method involves the specific capture of intact VLDL particles from a fluid sample with a specific VLDL binding agent. The quantity of VLDL-apoB present in the sample is then measured by detecting the amount of VLDL-apoB bound to the binding agent-VLDL complexes formed in the reaction. In an alternative embodiment of the method, intact VLDL particles from a fluid sample are also captured with a specific VLDL binding agent and thereafter the cholesterol associated with the bound VLDL is determined. The cholesterol contained in the binding-agent-VLDL complexes can be detected by reacting the complexes with labeled cholesterol specific binding agents and measuring the amount of label bound thereto, or by releasing the cholesterol in the complexes and measuring the amount to cholesterol released. VLDL specific binding reagents are also provided. Monoclonal antibodies (MAbs) were prepared by the hybridoma method using apolipoprotein CIII as immunogen in mice. MAb 18-358-211 was immobilized on CNBr-activated Sepharose 4B and used in an immunocapture assay for VLDL-cholesterol.

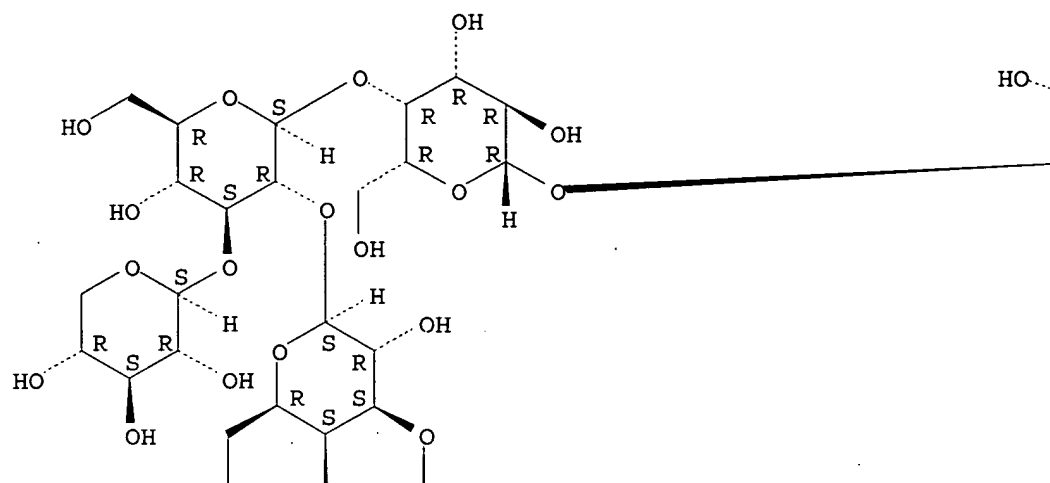
IT 11024-24-1DP, Digitonin, peroxidase conjugates
(immunoassay for detection of very low d. lipoprotein and antibodies useful therefor)

RN 11024-24-1 HCAPLUS

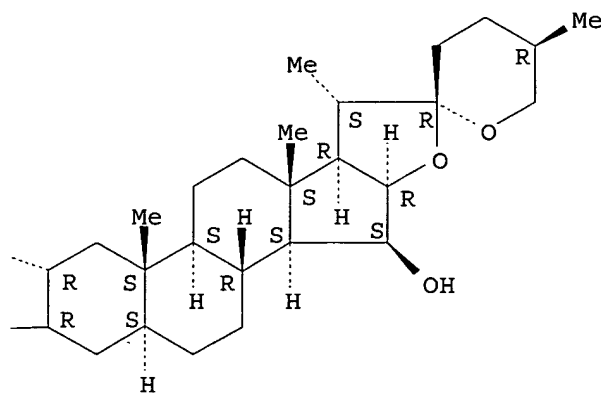
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

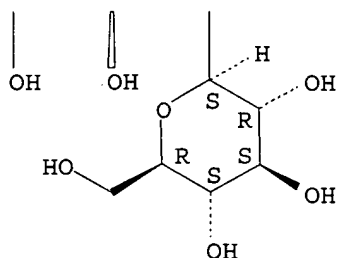
PAGE 1-A



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PAGE 2-A



IC ICM G01N033-92
 ICS G01N033-577; C07K016-18; C12N005-18
 CC 9-10 (Biochemical Methods)
 Section cross-reference(s): 15
 IT 9003-99-ODP, Peroxidase, digitonin conjugates 11024-24-1DP
 , Digitonin, peroxidase conjugates
 (immunoassay for detection of very low d. lipoprotein and
 antibodies useful therefor)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L28 ANSWER 32 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:241997 HCAPLUS
 DOCUMENT NUMBER: 130:287063
 TITLE: Method of preparing and using phytochemicals
 INVENTOR(S): Empie, Mark; Gugger, Eric
 PATENT ASSIGNEE(S): Archer Daniels Midland Company, USA
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 6
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 906761	A2	19990407	EP 1998-308060	1998 1002
EP 906761	A3	19990519		
EP 906761	B1	20040714		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6261565	B1	20010717	US 1998-162038	1998 0928
ZA 9808962	A	19990913	ZA 1998-8962	1998 1001
EP 1466609	A1	20041013	EP 2004-15530	1998 1002
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PT 906761	T	20041130	PT 1998-308060	

ES 2224337	T3	20050301	ES 1998-308060	1998 1002
HK 1016879	A1	20050422	HK 1999-101886	1998 1002
PRIORITY APPLN. INFO.:			US 1997-60549P	P 1999 0427 1997 1002
			US 1998-162038	P 1998 0928
			US 1996-614545	A3 1996 0313
			US 1997-868629	A2 1997 0604
			US 1998-35588	A2 1998 0305
			US 1998-162038P	P 1998 0928
			EP 1998-308060	A3 1998 1002

AB A composition is prepared by extracting phytochemicals from plant matter. This composition is enriched preferably in isoflavones, lignans, saponins, catechins and phenolic acids. Soy is the preferred source of these chemicals; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The composition is a dietary supplement for treatment of various cancers, pre- and post-menstrual syndromes, and various other disorders.

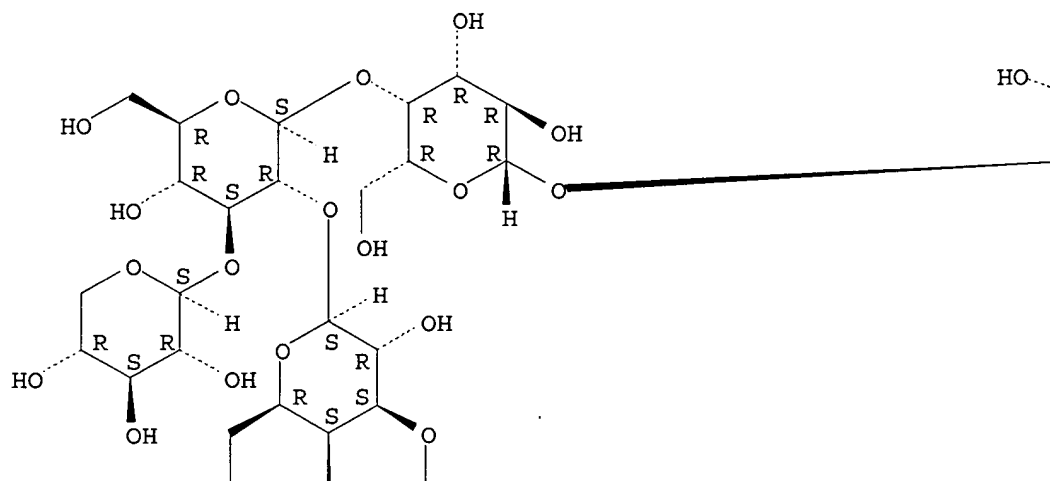
IT 11024-24-1D, Digitonin, reaction with glycyrrhizin
(method of preparing and dietary use of phytochemicals.)

RN 11024-24-1 HCAPLUS

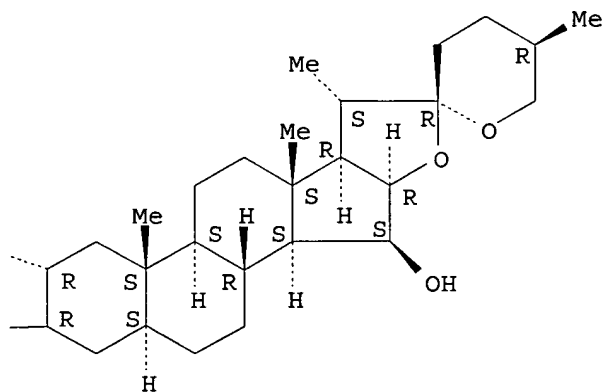
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

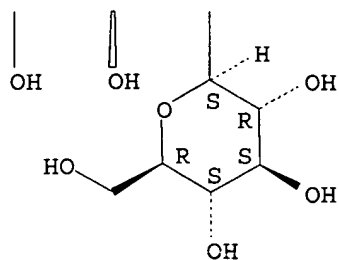
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM A61K035-78
ICS A23L001-30
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 14, 17, 18
IT 50-70-4, Sorbitol, biological studies 63-42-3, Lactose
69-72-7, Salicylic acid, biological studies 121-34-6, Vanillic
acid 149-91-7, Gallic acid, biological studies 154-23-4,
Catechin, biological studies 156-38-7 327-97-9, Chlorogenic
acid 331-39-5, Caffeic acid 446-72-0, Genistein 465-99-6,
Hederagenin 485-72-3, Formononetin 486-66-8, Daidzein
487-36-5, Pinoresinol 490-46-0, Epicatechin 490-79-9, Gentisic
acid 491-80-5, Biochanin A 500-38-9, Nordihydroguaiaretic acid
508-01-0, Soyasapogenol A 529-59-9, Genistin 530-57-4,
Syringic acid 530-59-6, Sinapic acid 548-29-8,
Isolariciresinol 552-66-9, Daidzin 557-04-0, Magnesium
stearate 580-72-3, Matairesinol 595-14-2, Soyasapogenol C
595-15-3, Soyasapogenol B 599-07-5, Medicagenic acid 621-82-9,
Cinnamic acid, biological studies 970-73-0, Gallocatechin
970-74-1, Epigallocatechin 1135-24-6, Ferulic acid 1393-03-9
1405-86-3D, Glycyrrhizin, reaction with digitonin 2955-23-9,
Olivil 6750-59-0, Soyasapogenol E 7440-70-2D, Calcium,
compds., biological studies 7693-13-2, Calcium citrate
7757-93-9, Dicalcium phosphate 9004-34-6, Cellulose, biological
studies 11024-24-1D, Digitonin, reaction with
glycyrrhizin 17406-45-0, Tomatine 17482-42-7, Calcium malate
25429-38-3, Coumaric acid 27003-73-2, Lariciresinol
29388-59-8, Secoisolariciresinol 29656-58-4, Hydroxybenzoic acid
40957-83-3, Glycitein 56283-67-1, Lucernic acid 65892-76-4,
Soyasapogenol D 84161-89-7, Zanhic acid 104033-83-2,
Soyasapogenol F
(method of preparing and dietary use of phytochems.)

L28 ANSWER 33 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:579982 HCAPLUS
DOCUMENT NUMBER: 129:207212
TITLE: Transdermal preparations of oxicam drugs
INVENTOR(S): Hu, Yoa-pu; Chen, Chieh Fu
PATENT ASSIGNEE(S): National Research Institute of Chinese
Medicine, Taiwan
SOURCE: Eur. Pat. Appl., 50 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 858805	A2	19980819	EP 1997-308145	1997 1014
EP 858805	A3	19980902		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10218774	A2	19980818	JP 1997-44750	1997 0213
JP 3143885	B2	20010307		

PRIORITY APPLN. INFO.:

JP 1997-44750

A

1997
0213

US 1997-886400

A

1997
0701

AB The present invention is related to a transdermal preparation of oxicam drugs. The preparation comprises 0.1 to 50% of an oxicam, 0.1 to 70% of pure compns. from Chinese herbal enhancers as enhancers, as well as other necessary excipients for the transdermal delivery of an active ingredient. This transdermal preparation is intended to be used for anti-inflammatory cases, but with few gastrointestinal side effects. Thus, 4% piroxicam was dissolved in 20% ethylene glycol. A solution of 2% CM-cellulose sodium in water was mixed with the above solution to give a gel.

IT 11024-24-1, Digitonin

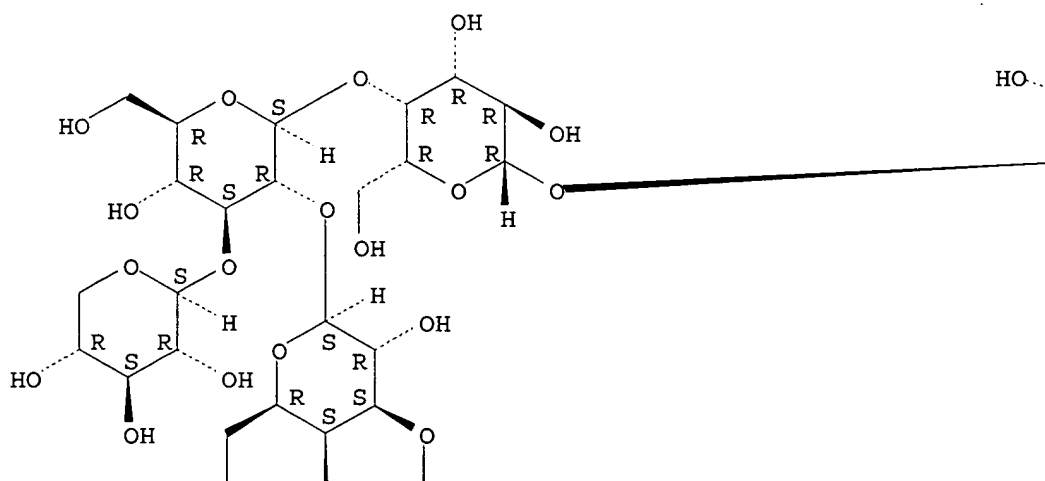
(transdermal preps. containing oxicam drugs)

RN 11024-24-1 HCAPLUS

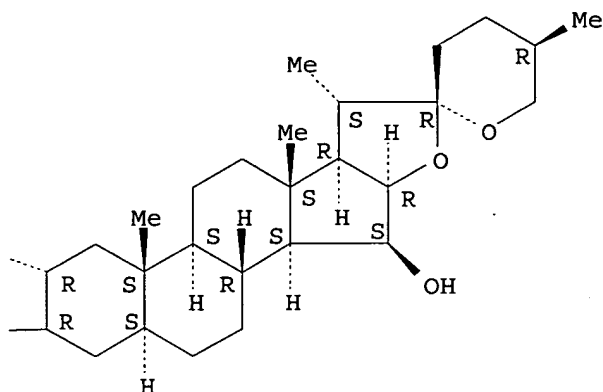
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

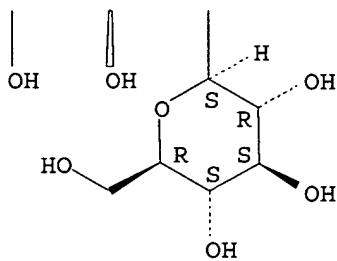
PAGE 1-A



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PAGE 2-A



IC ICM A61K031-54
 CC 63-6 (Pharmaceuticals)
 IT 57-87-4, Ergosterol 77-52-1, Ursolic acid 92-94-4, p-Terphenyl
 98-55-5, α -Terpineol 107-21-1, Ethylene glycol, biological
 studies 112-53-8, Lauryl alcohol 123-35-3, β -Myrcene
 124-06-1, Ethyl myristate 140-10-3, trans-Cinnamic acid,
 biological studies 154-23-4, (+)-Catechin 470-82-6, Cineole
 473-98-3, Betulin 490-46-0, Epicatechin 508-02-1, Oleanolic
 acid 1405-86-3, Glycyrrhizin 5989-27-5, (+)-Limonene
 7785-26-4, (-)- α -Pinene 8000-41-7, Terpeneol 9004-32-4,
 Cellulose, carboxymethyl ether, sodium salt 9005-65-6, Tween 80
 11024-24-1, Digitonin 14371-10-9, trans-Cinnamaldehyde
 34042-85-8, Sudoxicam 34552-84-6, IsOxicam 36322-90-4,
 Piroxicam 59804-37-4, Tenoxicam 70374-27-5, Lomoxicam
 87234-24-0, Cinnoxicam
 (transdermal preps. containing oxicam drugs)

L28 ANSWER 34 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:535707 HCAPLUS

DOCUMENT NUMBER: 129:221212

TITLE: Transdermal preparations of oxicams containing
 Chinese drug components

INVENTOR(S): Ko, Yo Pu; Chin, Kai Fu

PATENT ASSIGNEE(S): Chinese Academy of Medical sciences, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10218774	A2	19980818	JP 1997-44750	1997 0213
JP 3143885	B2	20010307		
EP 858805	A2	19980819	EP 1997-308145	1997 1014
EP 858805	A3	19980902		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:			JP 1997-44750	A 1997 0213
			US 1997-886400	A 1997 0701

AB Antipyretic and analgesic transdermal prepns. contain 0.1-50 weight% oxicams, 0.1-70 weight% Chinese drug components, e.g. pinene, trans-cinnamic acid, cineole, etc., as absorption enhancers, and excipients. Addition of β -myrcene to a piroxicam (I) gel remarkably increased absorption of I from a sheet of abdominal skin of nude mice.

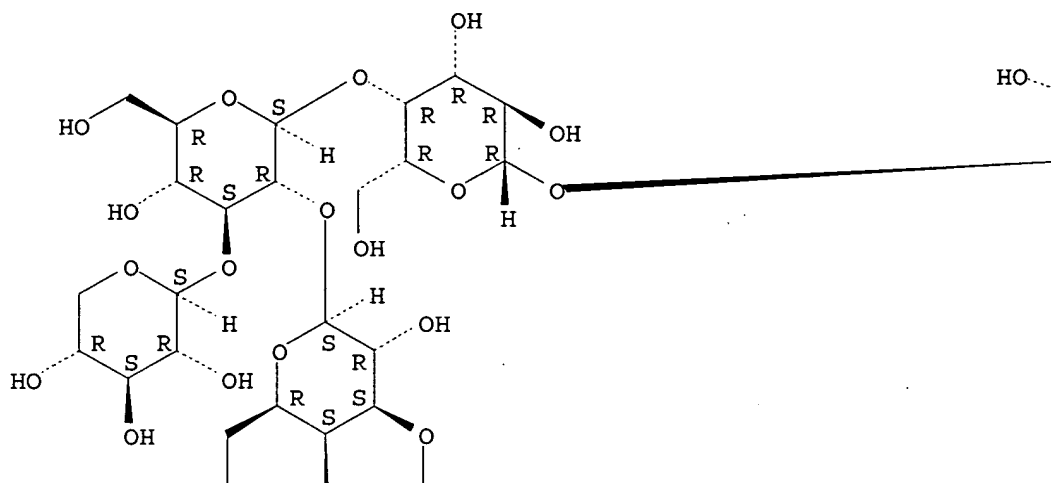
IT 11024-24-1, Digitonin
(transdermal prepns. of antipyretic analgesic oxycams containing Chinese drug components as absorption enhancers)

RN 11024-24-1 HCAPLUS

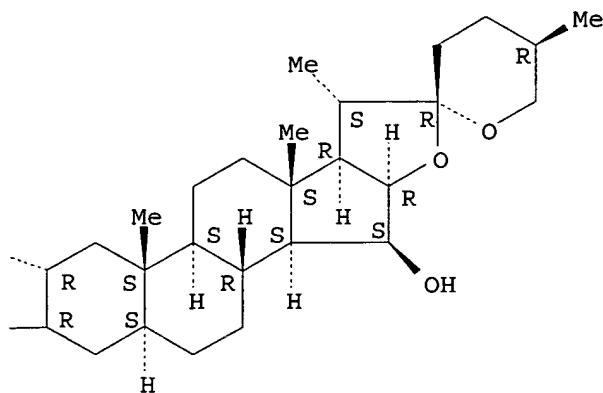
CN β -D-Galactopyranoside, (2 α , 3 β , 5 α , 15 β , 25
R)-2,15-dihydroxySpirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

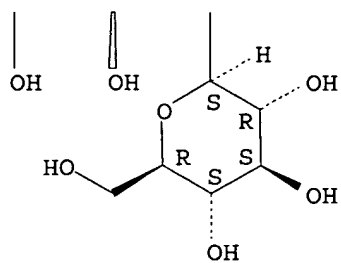
PAGE 1-A



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PAGE 2-A



IC ICM A61K031-54
 ICS A61K031-54; A61K009-06; A61K009-08; A61K009-107; A61K009-70;
 A61K047-46; A61K035-78; C07D513-04
 CC 63-6 (Pharmaceuticals)
 IT 57-87-4, Ergosterol 77-52-1, Ursolic acid 112-53-8, Lauryl
 alcohol 123-35-3, β -Myrcene 124-06-1, Ethyl myristate
 140-10-3, trans-Cinnamic acid, biological studies 154-23-4,
 (+)-Catechin 470-82-6, Cineole 473-98-3, Betulin 490-46-0,
 Epicatechin 508-02-1, Oleanolic acid 1330-16-1, Pinene
 1405-86-3, Glycyrrhizin 7785-26-4 8000-41-7, Terpeneol
 11024-24-1, Digitonin 14371-10-9, trans-Cinnamaldehyde
 26140-60-3, Terphenyl
 (transdermal preps. of antipyretic analgesic oxycams containing
 Chinese drug components as absorption enhancers)

L28 ANSWER 35 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:389172 HCAPLUS
 DOCUMENT NUMBER: 129:113511
 TITLE: Novel steroidal saponin and antimicrobial
 agents and antitumor agents containing it
 INVENTOR(S): Ochi, Masamitsu; Tsuburaya, Etsuzo
 PATENT ASSIGNEE(S): Nakano Suten K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 10158295	A2	19980616	JP 1996-320142	1996 1129
PRIORITY APPLN. INFO.:			JP 1996-320142	1996 1129

AB Antimicrobial agents and antitumor agents contain a steroidal
 saponin (gitogenin glycoside (I)). Extraction of 1 kg of Hosta
 sieboldiana leaves with 50% EtOH-H₂O, removal of EtOH by evaporation,
 extraction of the aqueous solution with AcOEt, extraction of the aqueous layer
 with

BuOH, and fractionation of the extract gave 8 mg I. I controlled
 Debaryomyces polymorphus and Zygosaccharomyces rouxii with min.
 inhibitory concns. of 10.0 and 5.0 ppm, resp. I inhibited Artemia
 larvae with LD50 of 30 ppm.

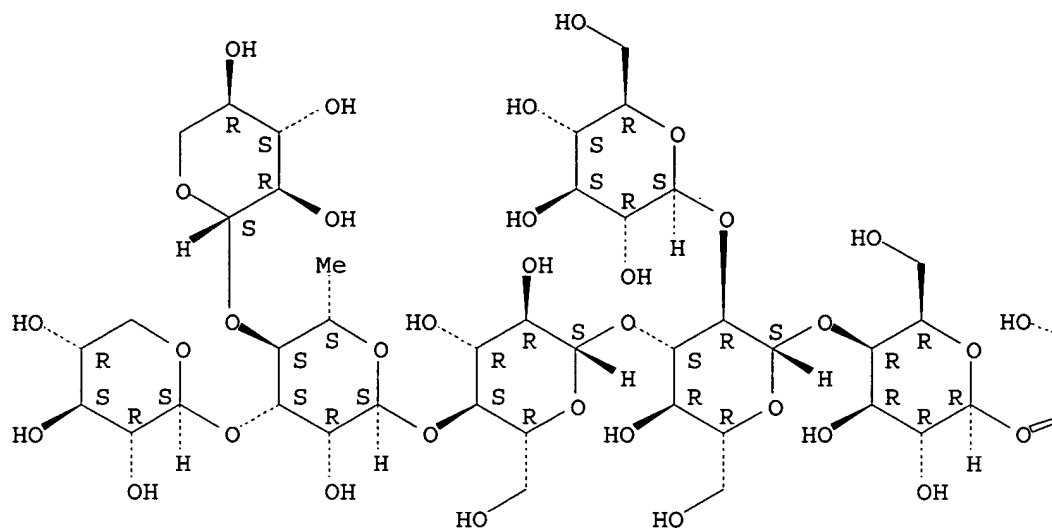
IT 209964-86-3P
 (novel steroidal saponin (gitogenin glycoside) from Hosta
 sieboldiana for antimicrobial and antitumor agents)

RN 209964-86-3 HCAPLUS

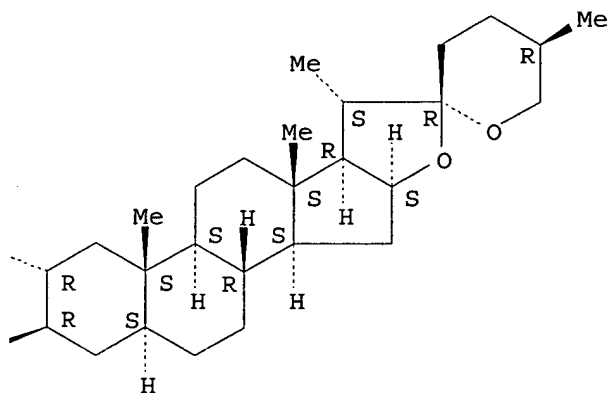
CN β -D-Galactopyranoside, (2 α , 3 β , 5 α , 25R)-2-
 hydroxyspirostan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O-
 β -D-xylopyranosyl-(1 \rightarrow 3)-O-[β -D-xylopyranosyl-
 (1 \rightarrow 4)]-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)-
 β -D-glucopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-
 (1 \rightarrow 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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IC ICM C07J071-00

ICS A61K031-70; A61K035-78

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 1, 11, 32, 33

IT 209964-86-3P

(novel steroidal saponin (gitogenin glycoside) from *Hosta sieboldiana* for antimicrobial and antitumor agents)

L28 ANSWER 36 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:274922 HCAPLUS

DOCUMENT NUMBER: 129:32293

TITLE: Steroid saponin from *Hosta* and antimicrobial and antitumor agents containing it

USHA SHRESTHA EIC 1600 REM 1A64

INVENTOR(S): Echi, Masamitsu; Enya, Etsuzo
 PATENT ASSIGNEE(S): Nakano Vinegar Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10114791	A2	19980506	JP 1996-270292	1996 1011
PRIORITY APPLN. INFO.:			JP 1996-270292	1996 1011

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
 *

AB Antimicrobial agents or antitumor agents contain steroid saponin
 I. I was extracted from dried leaves of *H. sieboldiana*. I inhibited
Debaryomyces polymorphus and *Zygosaccharomyces rouxii* with MIC of
 2.5-5.0 ppm. Antitumor activity of I was also shown in bioassay
 using *Artemia* larvae or ascidian egg.

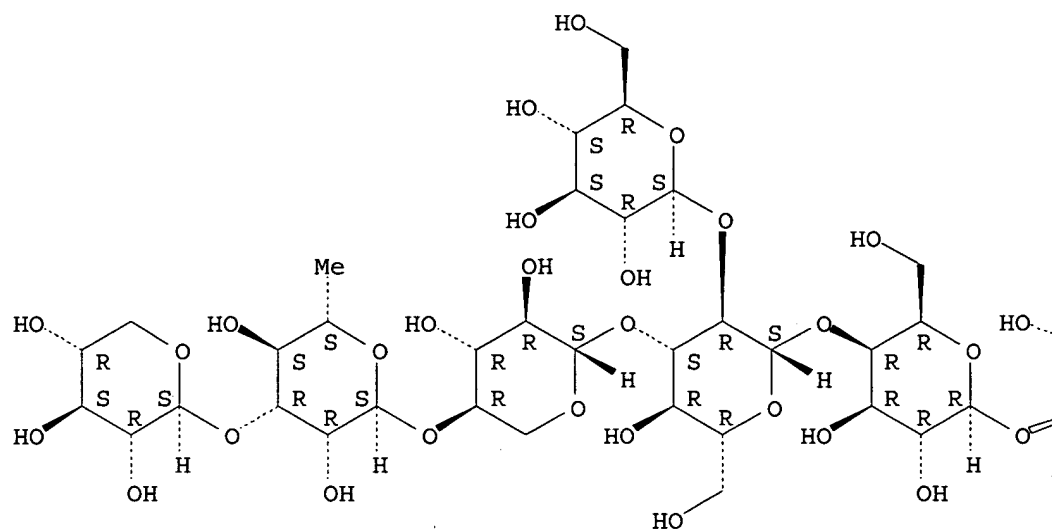
IT 208102-79-8P
 (steroid saponin from *Hosta* as antimicrobial and antitumor
 agents)

RN 208102-79-8 HCAPLUS

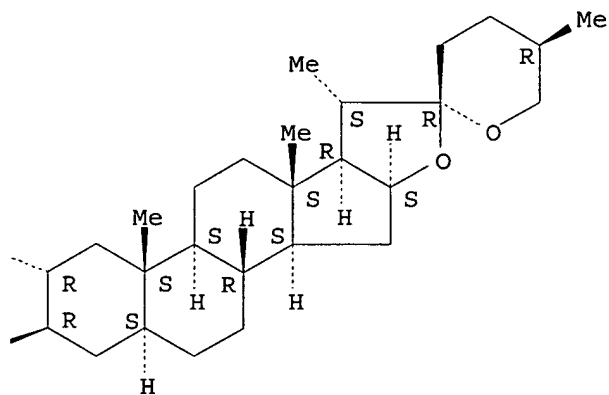
CN β -D-Galactopyranoside, (2 α , 3 β , 5 α , 25R)-2-
 hydroxySpirostan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O-
 β -D-xylopyranosyl-(1 \rightarrow 3)-O-6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)- β -D-xylopyranosyl-(1 \rightarrow 3)]-O-
 β -D-glucopyranosyl-(1 \rightarrow 4) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IC ICM C07J071-00
ICS A61K031-70; A61K035-78
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 1, 17
IT 208102-79-8P
(steroid saponin from Hosta as antimicrobial and antitumor agents)

L28 ANSWER 37 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:587288 HCAPLUS
DOCUMENT NUMBER: 127:231596
TITLE: Colorimetric determination of biological components and the compositions
INVENTOR(S): Gorai, Takashi; Hayashi, Tsukasa; Yamamoto,

PATENT ASSIGNEE(S): Shigekazu; Matsumoto, Katsumi
 SOURCE: Kainosu K. K., Japan
 Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09224697	A2	19970902	JP 1996-35030	1996 0222

PRIORITY APPLN. INFO.: JP 1996-35030

1996
0222

AB In the determination of biol. components by enzymically converting the analytes into H₂O₂ which is determined by colorimetry in the presence of peroxidase, the reaction is performed in the presence of ferrocyanides and SR (I; S = polysaccharide residue; R = C₂-20 linear or branched alkyl, triterpene or steroid aglycon) as nonionic surfactants to prevent interference with bilirubin, etc. The comps. contain enzymes which act on the analytes to generate H₂O₂, peroxidase, color-forming reagents, ferrocyanides, and I. A pooled serum containing ditauobilirubin was incubated with a reagent 1 containing 2-hydroxy-3-morpholinopropanesulfonic acid, -methyl-N-(hydroxy-3-sulfopropyl)-m-anisidine, ascorbate oxidase, and dodecyl β-D-maltoside (I) at 37° for 5 min, then with a reagent 2 containing N-2-hydroxyethylpiperazine-2-ethanesulfonic acid, 4-aminoantipyrine, NaN₃, K ferrocyanide, cholesterol oxidase, and peroxidase at 37° for 5 min, and the reaction mixture was subjected to colorimetry. Determination error due to ditauobilirubin was significantly reduced by addition of I.

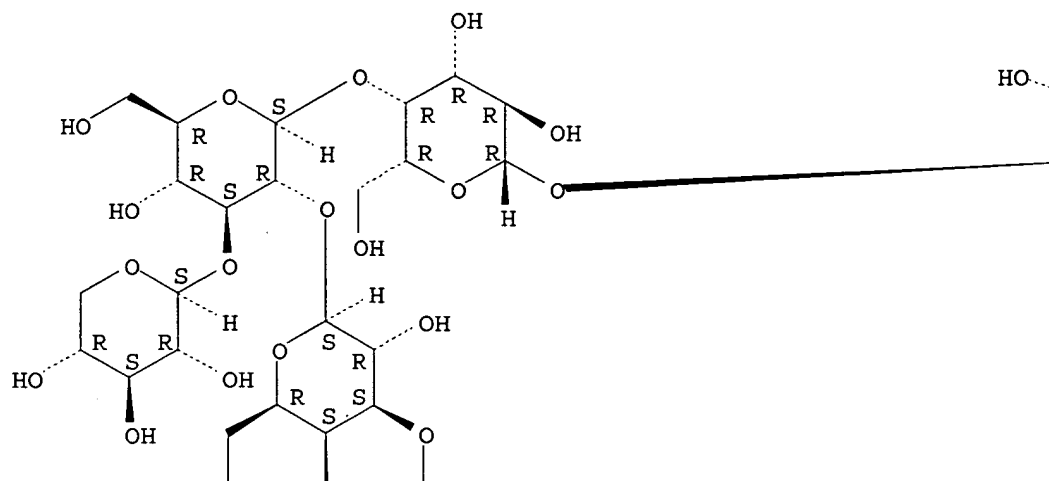
IT 11024-24-1, Digitonin
 (colorimetric determination of biol. components in serum using comps. containing ferrocyanides and nonionic surfactants to prevent bilirubin interference)

RN 11024-24-1 HCAPLUS

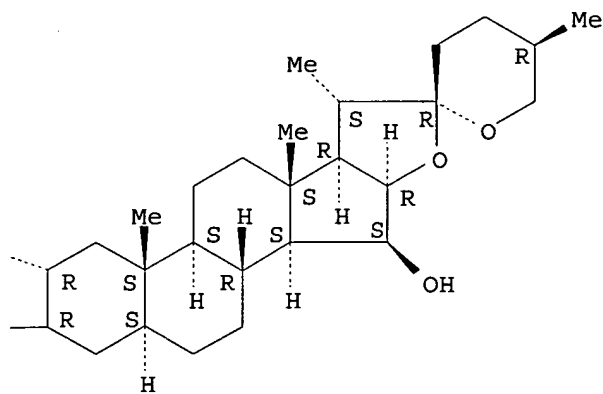
CN β-D-Galactopyranoside, (2α,3β,5α,15β,25
 R)-2,15-dihydroxyspirostan-3-yl O-β-D-glucopyranosyl-
 (1→3)-O-β-D-galactopyranosyl-(1→2)-O-[β-D-
 xylopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

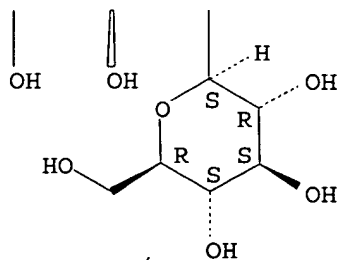
PAGE 1-A



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PAGE 2-A



IC ICM C12Q001-28
 CC 9-5 (Biochemical Methods)
 Section cross-reference(s): 14
 IT 11024-24-1, Digitonin 13943-58-3, Potassium ferrocyanide
 25339-99-5, Sucrose monolaurate 69227-93-6, Dodecyl
 β -D-maltoside
 (colorimetric determination of biol. components in serum using compns.
 containing ferrocyanides and nonionic surfactants to prevent
 bilirubin interference)

L28 ANSWER 38 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:548820 HCAPLUS

DOCUMENT NUMBER: 127:214770

TITLE: Digitonin enhances the efficacy of carboplatin
 in liver tumor after intra-arterial
 administration

AUTHOR(S): Lindner, Per G.; Heath, Dennis; Howell,
 Stephen B.; Naredi, Peter L.; Hafstrom,
 Larsolof R.

CORPORATE SOURCE: Sahlgrenska Hospital, University Goteborg,
 Goeteborg, S-41345, Swed.

SOURCE: Cancer Chemotherapy and Pharmacology (1997),
 40(5), 444-448

CODEN: CCPHDZ; ISSN: 0344-5704

PUBLISHER: Springer

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Platinum-containing drugs enter the cell slowly and have a poor tissue
 penetration. Increasing the permeability of the cell membrane
 might increase the intracellular drug concentration. Digitonin, a
 detergent that increases cell permeability by binding to
 cholesterol mols. in the cell membrane, can increase cisplatin
 accumulation and reduce tumor growth in vitro. It was determined
 whether digitonin could increase the efficacy of carboplatin
 (CBDCA) in vivo. In LH rats, a hepatoma was implanted in the
 liver. At 7 days after implantation, digitonin was infused via
 the hepatic artery and, 10 min later, CBDCA was injected.
 Biopsies from the tumor and liver parenchyma were obtained after 1
 h. The concentration of Pt measured in the liver tumors was higher in
 the digitonin group than in the control groups. In the liver
 parenchyma the concns. the same. Measured with the
¹³³Xe-clearance technique, digitonin did not alter the tumor blood
 flow. Digitonin enhanced the tumor-growth-retarding effect of
 CBDCA given intra-arterially at 5 mg/kg but not at 25 mg/kg. No
 increase in toxicity was observed for digitonin given together with
 CBDCA at 5 mg/kg. Systemic administration of CBDCA was not
 influenced by digitonin. These findings demonstrate that
 pretreatment with digitonin increases the tumor uptake of CBDCA
 and potentiates the cytotoxic effect of CBDCA.

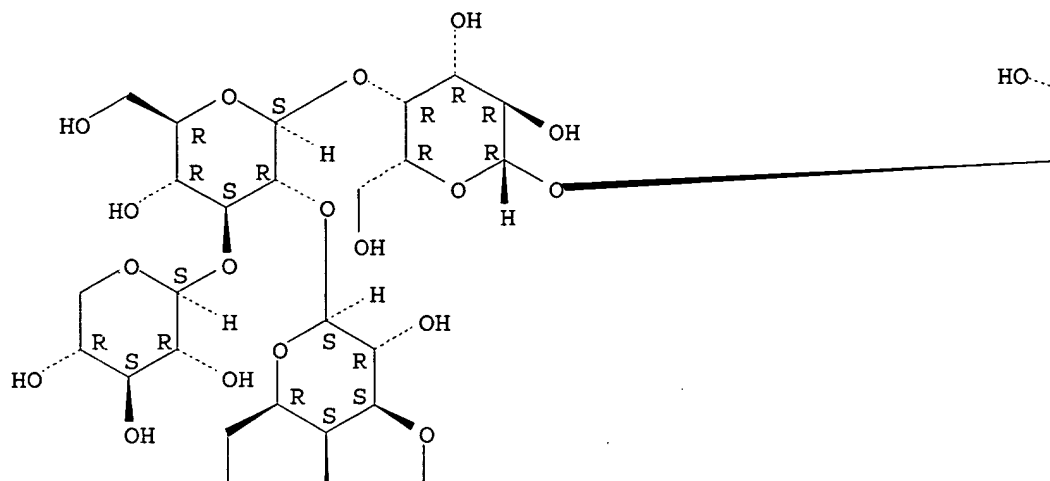
IT 11024-24-1, Digitonin
 (digitonin enhances the uptake of carboplatin in liver tumor)

RN 11024-24-1 HCAPLUS

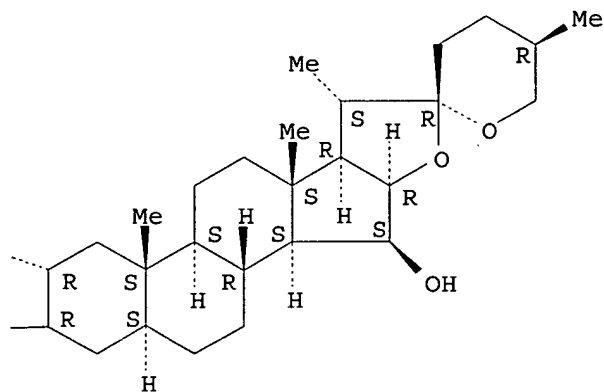
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

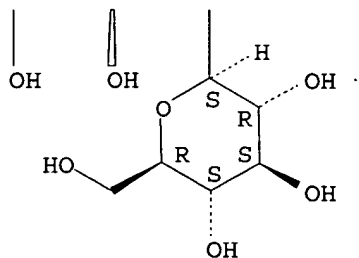
PAGE 1-A



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PAGE 2-A



CC 1-6 (Pharmacology)
IT 11024-24-1, Digitonin
(digitonin enhances the uptake of carboplatin in liver tumor)

L28 ANSWER 39 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:349624 HCAPLUS

DOCUMENT NUMBER: 127:44662

TITLE: Involvement of a peripheral mechanism in the emesis induced by cardiac glycosides in *Suncus murinus*

AUTHOR(S): Kakimoto, Shuichiro; Saito, Hiroshi; Matsuki, Norio

CORPORATE SOURCE: Department of Chemical Pharmacology, Faculty of Pharmaceutical Science, The University of Tokyo, Hongo, 113, Japan

SOURCE: Biological & Pharmaceutical Bulletin (1997), 20(5), 486-489

CODEN: BPBLEO; ISSN: 0918-6158

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The ability of three cardiac glycosides, ouabain, digitonin and digitoxin, to induce emesis and their mechanism(s) of action were investigated in *Suncus murinus*. The i.p. injection of ouabain but not digitonin nor digitoxin caused vomiting in a dose-dependent manner. However, the administration of ouabain into the cerebroventricle did not cause emesis. Ouabain-induced emesis was partly prevented by surgical abdominal vagotomy. Pretreatment with tropisetron, a selective 5-HT₃ (5-hydroxytryptamine) receptor antagonist, did not affect the emetic response evoked by ouabain. These results suggest that ouabain exerts emetic effects via peripheral mechanisms(s), but 5-HT₃ receptors are not involved in the pathway.

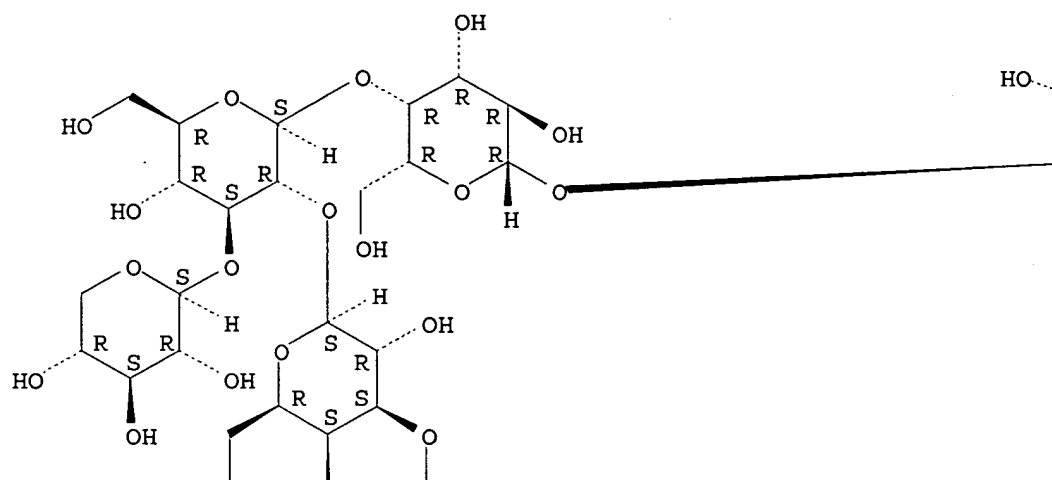
IT 11024-24-1, Digitonin
(involvement of a peripheral and absence of 5-HT₃ mechanisms in emesis induced by cardiac glycosides in *Suncus murinus*)

RN 11024-24-1 HCAPLUS

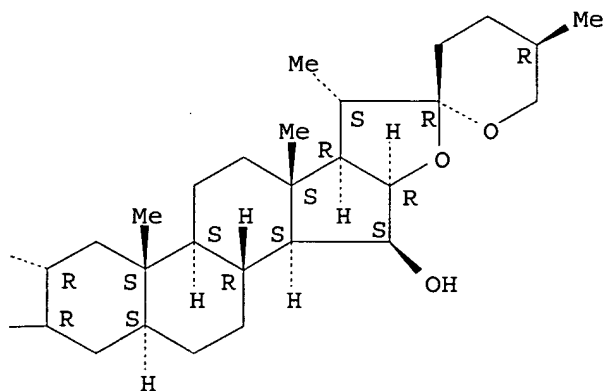
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

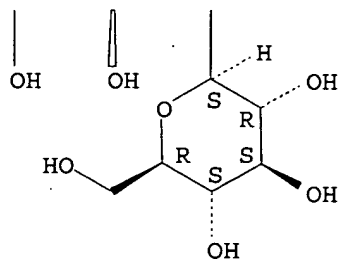
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PAGE 2-A



CC 1-8 (Pharmacology)
IT 71-63-6, Digitoxin 630-60-4, Ouabain 11024-24-1,
Digitonin
(involvement of a peripheral and absence of 5-HT3 mechanisms in
emesis induced by cardiac glycosides in *Suncus murinus*)
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 40 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:68400 HCAPLUS

DOCUMENT NUMBER: 126:183755

TITLE: Steroidal glycosides from the underground
parts of *Hosta plantaginea* var. *japonica* and
their cytostatic activity on leukemia HL-60
cells

AUTHOR(S): Mimaki, Yoshihiro; Kameyama, Aiko; Kuroda,
Minpei; Sashida, Yutaka; Hirano, Toshijiko;
Oka, Kitaro; Koike, Kazuo; Nikaido, Tamotsu

CORPORATE SOURCE: Sch. Pharmacy, Tokyo Univ. Pharmacy Life Sci.,
Tokyo, 192-03, Japan

SOURCE: Phytochemistry (1996), Volume Date 1997,
44(2), 305-310

CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new C22-steroid glycoside was isolated from the underground
parts of *Hosta plantaginea* var. *japonica*, together with a known
furostanol saponin and three known spirostanol saponins. The
structure of the new steroid glycoside was characterized by
spectroscopic anal. and acid-catalyzed hydrolysis as
2 α ,3 β ,16 β -trihydroxy-5 α -pregn-20(21)-ene-
carboxylic acid γ -lactone 3-O-{O- β -D-glucopyranosyl-
(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-
galactopyranoside}. The isolated compds. were assayed for their
cytostatic activity on leukemia HL-60 cells. The spirostanol
saponins showed cytostatic activity in a dose-dependent manner
with the IC50 values ranging between 1 and 3 μ g ml⁻¹.

IT 119483-75-9P

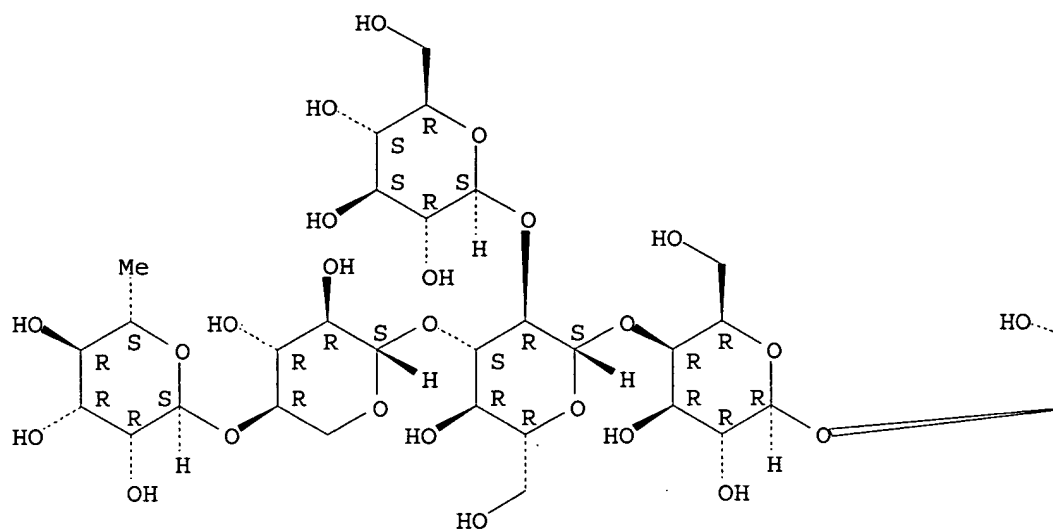
(steroidal glycosides from the underground parts of *Hosta*
plantaginea var. *japonica* and their cytostatic activity on
leukemia HL-60 cells)

RN 119483-75-9 HCAPLUS

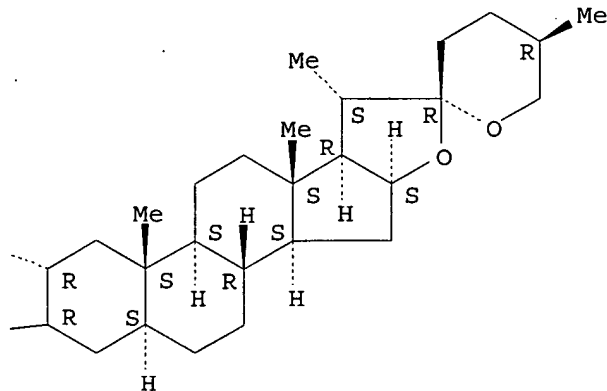
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,25R)-2-
hydroxyspirostan-3-yl O-6-deoxy- α -L-mannopyranosyl-
(1 \rightarrow 4)-O- β -D-xylopyranosyl-(1 \rightarrow 3)-O- [β -D-
glucopyranosyl-(1 \rightarrow 2)]-O- β -D-glucopyranosyl-
(1 \rightarrow 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 1, 30, 33

IT 28591-01-7P 119483-75-9P 160067-93-6P 186901-40-6P
186960-65-6P(steroidal glycosides from the underground parts of *Hosta plantaginea* var. *japonica* and their cytostatic activity on leukemia HL-60 cells)

REFERENCE COUNT:

15

THERE ARE 15 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 41 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:595231 HCAPLUS

DOCUMENT NUMBER: 126:176759

USHA SHRESTHA EIC 1600 REM 1A64

TITLE: Evaluation of ocular permeation enhancers: in vitro effects on corneal transport of four β -blockers, and in vitro/in vivo toxic activity

AUTHOR(S): Fabrizio Saettone, M.; Chetoni, Patrizia; Cerbai, Riccardo; Mazzanti, Gabriela; Braghiroli, Laura

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Pisa, Via Bonanno 33, Pisa, 56126, Italy

SOURCE: International Journal of Pharmaceutics (1996), 142(1), 103-113
CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The efficacy and toxicity of a series of prospective ocular penetration enhancers (benzalkonium chloride, EDTA, nonionic surfactants, surface-active heteroglycosides and bile salts) was investigated in vitro, using isolated rabbit corneas. As test drugs 4 β -blocking agents were used, chosen in order of increasing lipophilicity: atenolol (AT), timolol (TM), levobunolol (LB) and betaxolol (BX). The increased corneal hydration induced by the enhancers was taken as an index of cellular and tissue damage; the ocular irritancy of the agents was also tested in rabbits in vivo. In the absence of enhancers, the apparent corneal permeability coeffs. of the 4 drugs were in the order AT.simeq.TM <LB \geq BX; in general, the enhancers increased the permeation rates of the more hydrophilic drugs, AT and TM, more than those of the other 2, more lipophilic ones, LB and BX. The study pointed to some agents (in particular, polyoxyethylene alkyl ethers and bile salts) as effective and safe penetration promoters for AT and TM. Their apparent safety at the tested concns. was confirmed by their failure to increase the corneal hydration level beyond the 'normal' value, and by their lack of irritant effect in vivo, as evidenced by a Draize test.

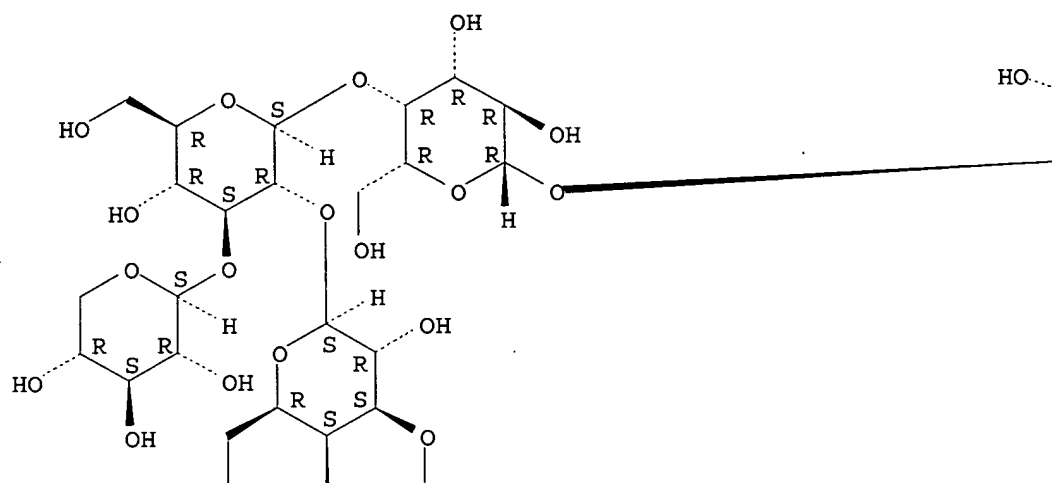
IT 11024-24-1, Digitonin
(ocular permeation enhancers effects on corneal transport of β -blockers)

RN 11024-24-1 HCAPLUS

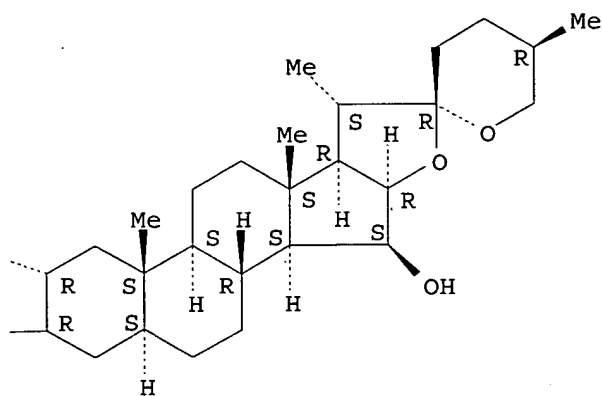
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxySpirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

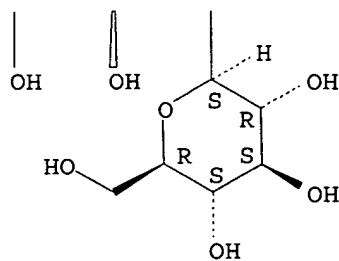
PAGE 1-A



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PAGE 2-A



CC 63-5 (Pharmaceuticals)
 Section cross-reference(s): 1
 IT 70-18-8, Reduced glutathione, biological studies 139-33-3,
 Disodium EDTA 302-95-4, Sodium deoxycholate 1180-95-6, Sodium
 taurodeoxycholate 2898-95-5, Sodium ursodeoxycholate
 6805-41-0, Escin 9002-92-0, Brij 35 9004-98-2, Brij 98
 9005-00-9, Brij 78 **11024-24-1**, Digitonin 26921-17-5,
 Timolol maleate 27912-14-7, Levobunolol hydrochloride
 29122-68-7, Atenolol 63659-19-8, Betaxolol hydrochloride
 (ocular permeation enhancers effects on corneal transport of
 β -blockers)

L28 ANSWER 42 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:695743 HCAPLUS

DOCUMENT NUMBER: 121:295743

TITLE: In vitro inhibition of adenosine deaminase by
 a group of steroid and triterpenoid compounds
 AUTHOR(S): Koch, Heinrich P.; Aichinger, Andrea; Bohne,
 Bernd; Plank, Gerlinde

CORPORATE SOURCE: Inst. Pharm. Chem., Univ. Vienna, Vienna,
 A-1090, Austria

SOURCE: Phytotherapy Research (1994), 8(2), 109-11
 CODEN: PHYREH; ISSN: 0951-418X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of several sapogenins and saponins of the steroid and
 triterpenoid classes, as well as of a few common phytosterols,
 have been tested for their inhibitory action towards adenosine
 deaminase (ADA). It was found that the acidic sapogenins strongly
 inhibit the enzyme. The mean inhibitory concentration (IC₅₀) was in the
 range 10⁻³ to 10⁻² mg/mL, while the inhibitor consts. (K_i) have
 been estimated as about 10⁻⁶M. In contrast to this finding is the
 complete absence of any influence on the enzyme of the neutral
 sapo(ge)nins and the phytosterols. It is suggested that ADA is a
 worthwhile therapeutic target and that the (acidic) sapogenins,
 which are regular constituents of many medicinal plant species,
 presumably contribute their activity through an interaction with
 this enzyme.

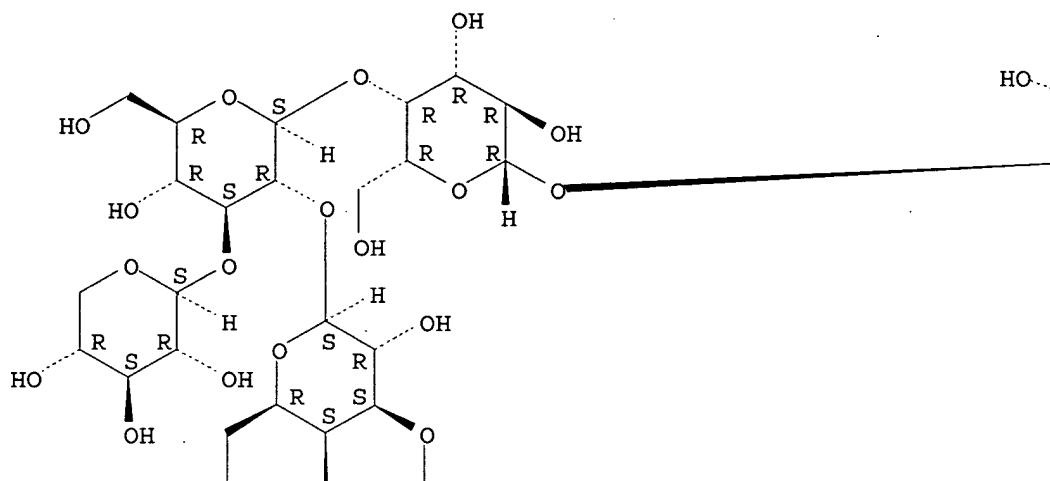
IT **11024-24-1**, Digitonin
 (in vitro inhibition of adenosine deaminase by group of steroid
 and triterpenoid compds.)

RN 11024-24-1 HCAPLUS

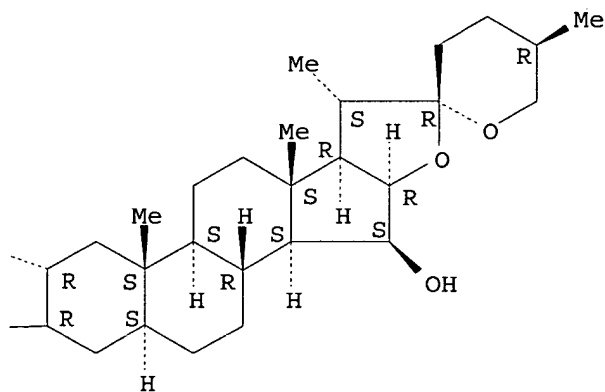
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
 R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
 (1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
 xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

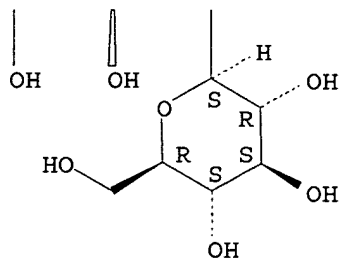
PAGE 1-A



PAGE 1-B



PAGE 2-A



CC 7-3 (Enzymes)
Section cross-reference(s): 1, 11, 30, 32

IT 57-87-4, Ergosterol 77-52-1, Ursolic acid 83-46-5,
 β -Sitosterol 83-48-7, Stigmasterol 471-53-4, Glycyrrhetic
acid 474-58-8, β -Sitosterol- β -D-glucoside 474-62-4,
Campesterol 508-02-1, Oleanolic acid 512-04-9, Diosgenin
559-70-6, β -Amyrin 11024-24-1, Digitonin
11072-93-8, β -Aescin
(in vitro inhibition of adenosine deaminase by group of steroid
and triterpenoid compds.)

L28 ANSWER 43 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:624923 HCAPLUS

DOCUMENT NUMBER: 111:224923

TITLE: Effects of various chemical compounds on
Ehrlich ascites tumor cells in a maintenance
medium

AUTHOR(S): Takamura, Shozo; Yoshida, Junko; Suzuki, Shiro

CORPORATE SOURCE: Dep. Pharmacol., Kanazawa Med. Univ.,
Uchinada, 920-02, Japan

SOURCE: Kanazawa Ika Daigaku Zasshi (1989), 14(2),
241-5
CODEN: KIDZDN; ISSN: 0385-5759

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of 71 natural and synthetic chemical compds. on Ehrlich
ascites tumor cells in a maintenance medium were examined. Nine
thiols and related compds. promoted the cell growth. Fifteen
potent cytotoxic compds. were tested at lower concns. against the
same cells. Two of these compds., diethyldithiocarbamate and
menadione, showed a marked cell-killing effect. Their mechanisms
of cytotoxic action are discussed.

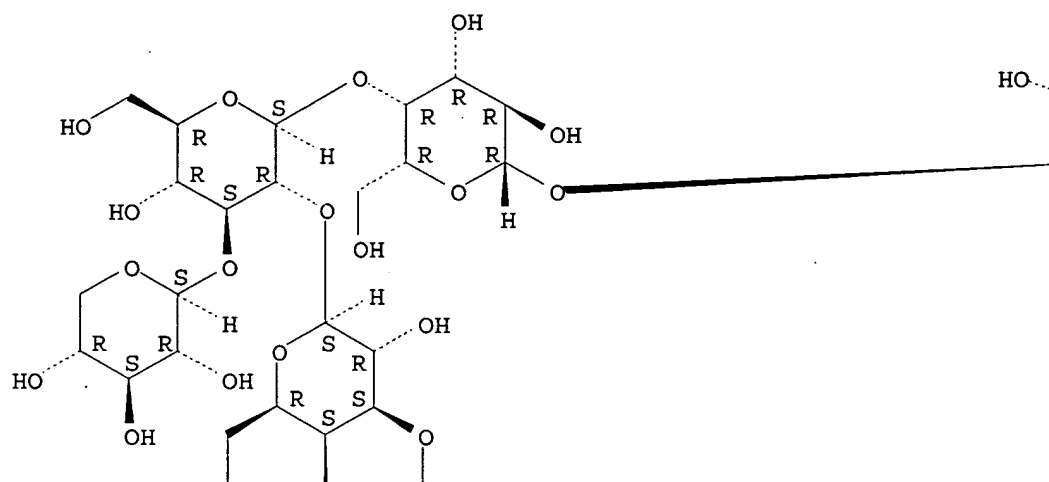
IT 11024-24-1, Digitonin
(neoplasm inhibition by)

RN 11024-24-1 HCAPLUS

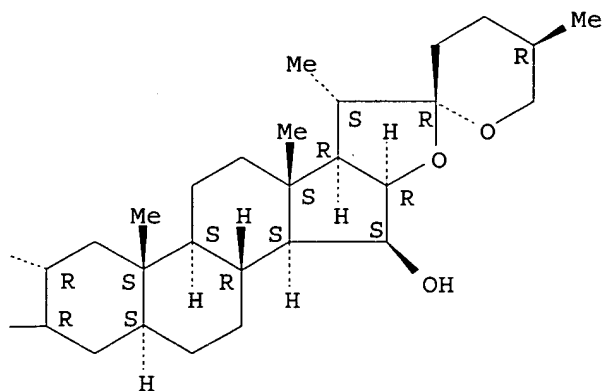
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxySpirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

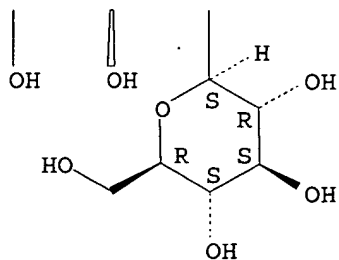
PAGE 1-A



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PAGE 2-A



CC 1-6 (Pharmacology)
 IT 50-53-3, Chlorpromazine, biological studies 50-67-9, Serotonin, biological studies 50-81-7, L-Ascorbic acid, biological studies 51-41-2, Noradrenaline 51-61-6, Dopamine, biological studies 52-53-9, Verapamil 52-67-5, D-Penicillamine 52-90-4, L-Cysteine, biological studies 53-57-6, NADPH 53-59-8, NADP 53-84-9, NAD 54-85-3, Isoniazid 54-92-2, Iproniazid 56-10-0 56-65-5, 5'-ATP, biological studies 58-27-5, Menadione 58-61-7, Adenosine, biological studies 58-68-4, NADH 58-97-9, 5'-Uridylic acid, biological studies 60-23-1, Cysteamine 60-24-2, 2-Mercaptoethanol 60-32-2 60-56-0, Methimazole 66-40-0, Tetraethylammonium 66-71-7, 1,10-Phenanthroline 70-18-8, biological studies 70-49-5, Thiomalic acid 78-98-8, Methylglyoxal 85-61-0, Coenzyme A, biological studies 86-01-1, GTP 86-54-4, Hydralazine 100-63-0, Phenylhydrazine 108-02-1 120-73-0D, Purine, derivs. 124-20-9, Spermidine 135-52-4, Zincon 147-84-2, biological studies 147-93-3, Thiosalicylic acid 149-30-4, 2-Mercaptobenzothiazole 155-09-9, Tranylcypromine 288-32-4, Imidazole, biological studies 289-95-2D, Pyrimidine, derivs. 362-74-3, Dibutyryl-cAMP 367-51-1, Sodium thioglycolate 444-27-9, 4-Thiazolidinecarboxylic acid 454-29-5, DL-Homocysteine 535-34-2, DL-Cystathionine 1197-18-8, Tranexamic acid 3483-12-3, Dithiothreitol 3858-83-1, p-Aminobenzamidine 7101-51-1, L-Dopa methyl ester 7440-50-8D, Copper, compds. 7758-98-7, Copper sulfate, biological studies 9001-90-5, Plasmin 9001-91-6, Plasminogen 9002-04-4, Thrombin 9002-07-7, Trypsin 9004-07-3, α -Chymotrypsin 9005-49-6, Heparin, biological studies 9031-37-2, Ceruloplasmin 9035-81-8, Trypsin inhibitor 9036-06-0, Pronase 9042-14-2, Dextran sulfate 10102-18-8, Sodium selenite **11024-24-1**, Digitonin 11028-71-0, Concanavalin A 14769-73-4 15658-35-2, 6,6'-Dithiodinicotinic acid 27025-41-8 29908-03-0, S-Adenosylmethionine 32266-35-6, Dibutyryl-cGMP 73348-75-1 82138-69-0
 (neoplasm inhibition by)

L28 ANSWER 44 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:572980 HCAPLUS

DOCUMENT NUMBER: 105:172980

TITLE: Tigogenin glycosides for treatment of hypercholesterolemia

INVENTOR(S): Malinow, M. Rene

PATENT ASSIGNEE(S): Medical Research Foundation of Oregon, USA

SOURCE: U.S., 7 pp.
 CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4602003	A	19860722	US 1982-379098	1982 0517
US 4602005	A	19860722	US 1984-602298	1984 0420

PRIORITY APPLN. INFO.:

US 1982-379098

A2

1982

0517

AB Tigogenin glycosides reduced digestive absorption of cholesterol. Thus, tigogenin was treated with glucose pentaacetate to give glucose-tigogenin. Similarly prepared were glucose-diosgenin and cellobiose-tigogenin which also showed activity.

IT 11024-24-1

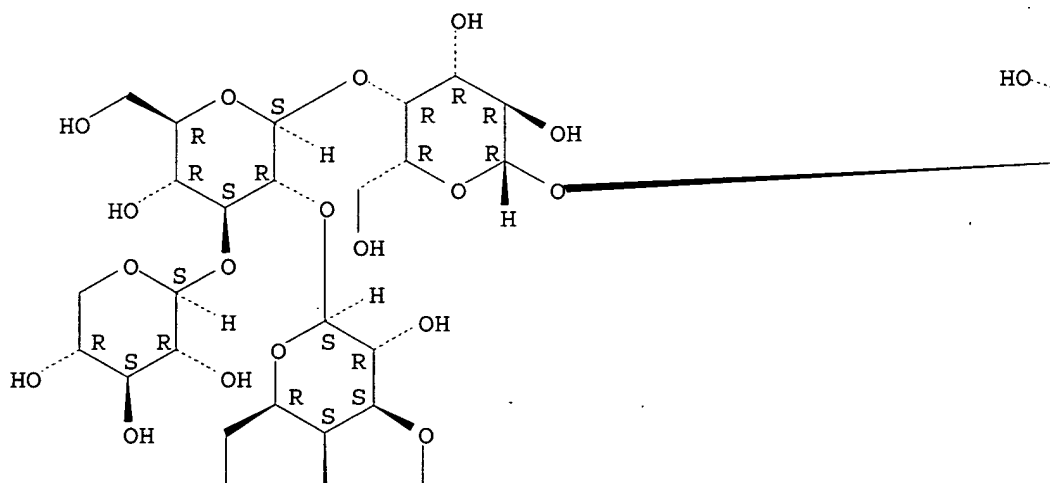
(anticholesteremic activity of)

RN 11024-24-1 HCAPLUS

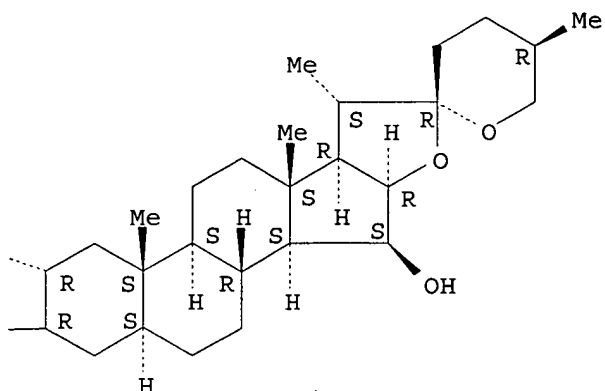
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

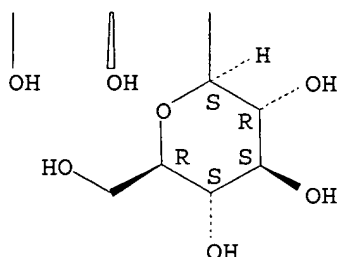
PAGE 1-A



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PAGE 2-A



IC ICM A01N031-00
 ICS A61K031-705; A61K031-58; A61K031-56
 INCL 514026000
 CC 33-3 (Carbohydrates)
 Section cross-reference(s): 1
 IT 7073-61-2 11024-24-1 104732-64-1 104732-65-2
 104732-66-3
 (anticholesteremic activity of)

L28 ANSWER 45 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:203116 HCAPLUS

DOCUMENT NUMBER: 100:203116

TITLE: Structure-antitumor activity relations in a series of steroidal glycosides

AUTHOR(S): Bersuker, I. B.; Dimoglo, A. S.; Choban, I. N.; Lazur'evskii, G. V.; Kintya, P. K.

CORPORATE SOURCE: Inst. Khim., Kishinev, USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1983), 17(12), 1467-71

CODEN: KHFZAN; ISSN: 0023-1134

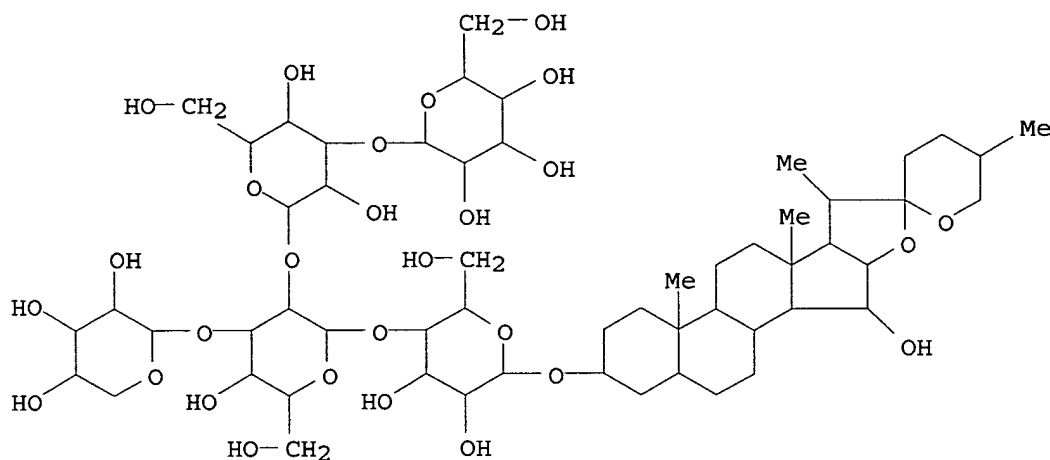
DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Computer anal. of mol. structure-neoplasm-inhibitory relations of 70 title compds. for which the degree of biol. activity is known showed that active compds. are characterized by branched glycosidal chains with ≥ 4 sugars, with the 1st sugar attached to C3 of the genin moiety being galactose, followed by 2 glucoses and then either xylose or rhamnose. Spirostanols tended

to be more active than furostanols. The importance of Me-group orientation at C25 and other parameters are discussed. The method was very successful in predicting the antitumor activities of 12 other compds.

IT 89590-96-5
(neoplasm-inhibiting activity of, structure in relation to)
RN 89590-96-5 HCAPLUS
CN β -D-Galactopyranoside, (3 β ,5 α ,15 β ,25R)-15-hydroxyspirostan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- (9CI) (CA INDEX NAME)



CC 1-3 (Pharmacology)
IT 39941-51-0 40043-49-0 50773-42-7 53093-47-3 59015-81-5
61478-50-0 75557-22-1 89590-89-6 89590-90-9 89590-92-1
89590-96-5 89590-97-6
(neoplasm-inhibiting activity of, structure in relation to)

L28 ANSWER 46 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1982:97468 HCAPLUS

DOCUMENT NUMBER: 96:97468

TITLE: Search for hypocholesteremic agents among a group of steroid glycosides

AUTHOR(S): Kintya, P. K.; Vasilenko, Yu. K.; Goryanu, G. M.; Bobeiko, V. A.; Suetina, I. V.; Mashchenko, N. E.

CORPORATE SOURCE: Inst. Khim., Kishinev, USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1981), 15(9), 55-60

CODEN: KHFZAN; ISSN: 0023-1134

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Among the 23 steroids and steroid glycosides tested, Agavoside C [58546-17-1] had the greatest hypocholesteremic effect and reduced blood cholesterol by 38.5% in hypercholesteremic rats. In contrast, a standard anticholesteremic agent, polysponin, reduced blood cholesterol by only 11%. Almost all the compds. tested showed some activity and may comprise a class of natural compds. able to reduce blood cholesterol.

IT 11024-24-1 58546-19-3

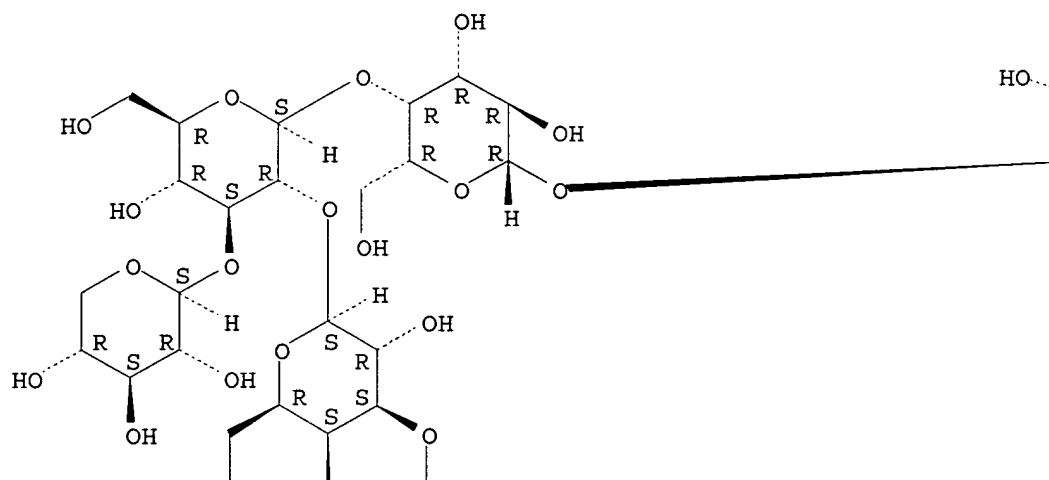
(anticholesteremic activity of)

RN 11024-24-1 HCAPLUS

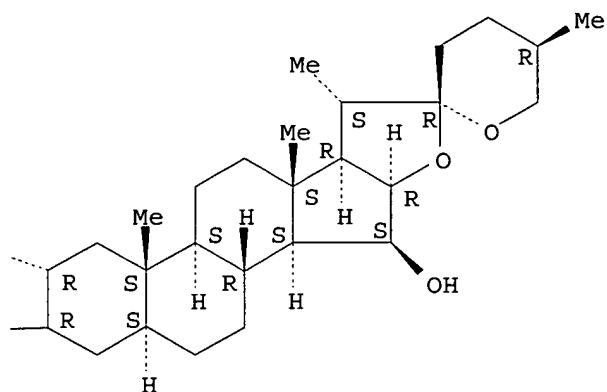
CN β -D-Galactopyranoside, (2 α ,3 β ,5 α ,15 β ,25
R)-2,15-dihydroxyspirostan-3-yl O- β -D-glucopyranosyl-
(1 \rightarrow 3)-O- β -D-galactopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

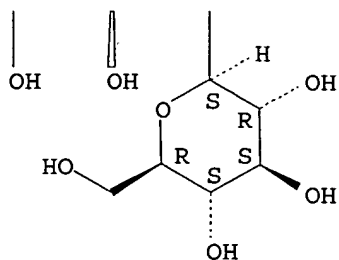
PAGE 1-A



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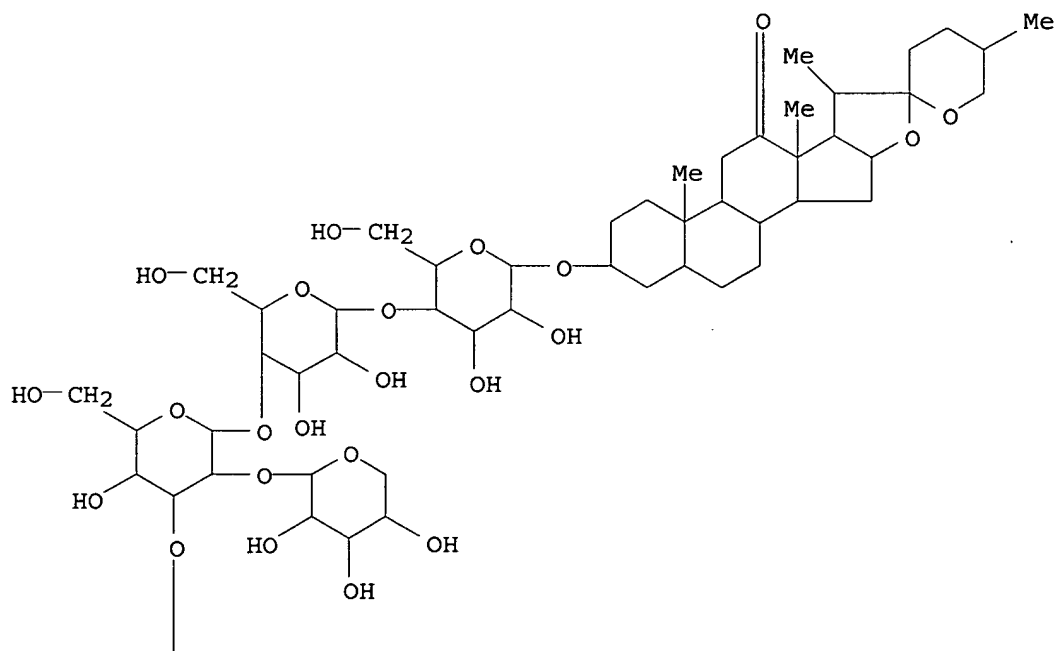


PAGE 2-A

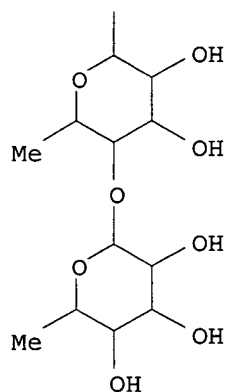


RN 58546-19-3 HCAPLUS
 CN Spirostan-12-one, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 3)-O-[β -D-xylopyranosyl-(1 \rightarrow 2)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-galactopyranosyl)oxy]-, (3 β ,5 α ,25R)- (9CI) (CA INDEX NAME)

PAGE 1-A



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CC 1-10 (Pharmacology)
 IT 126-19-2 467-55-0 511-96-6 512-04-9 **11024-24-1**
 14144-06-0 16653-52-4 19057-60-4 19057-68-2 28591-01-7
 54191-26-3 56857-65-9 56857-66-0 58546-17-1
58546-19-3 60267-23-4 60267-24-5 60267-28-9
 60454-80-0 60454-83-3 70855-43-5 75556-25-1 80234-43-1
 (anticholesteremic activity of)